362.2
M22
v.84

The Massachusetts General Hospital

Eighty-Fourth Annual Report

TO THE

TRUSTEES

BY THE

SUPERINTENDENT

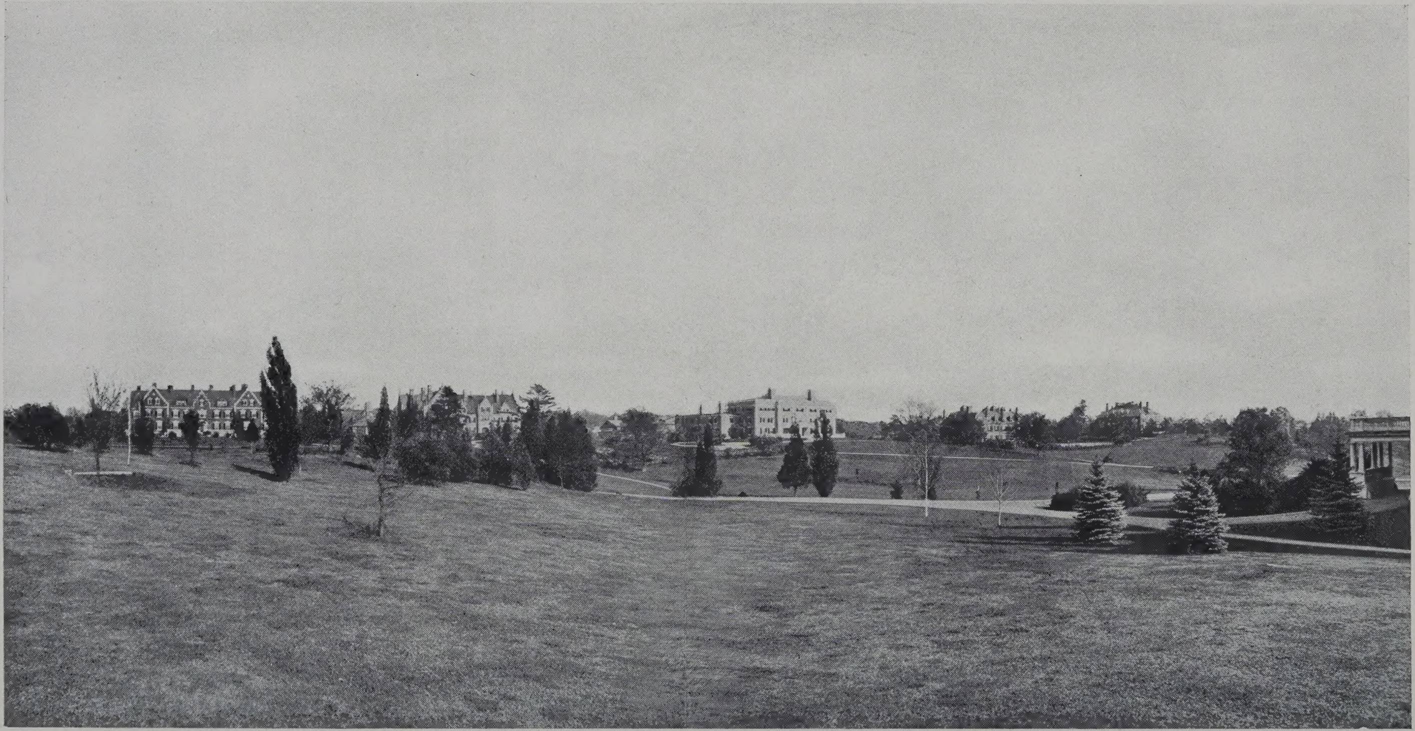
OF THE

McLEAN HOSPITAL

AT WAVERLEY.

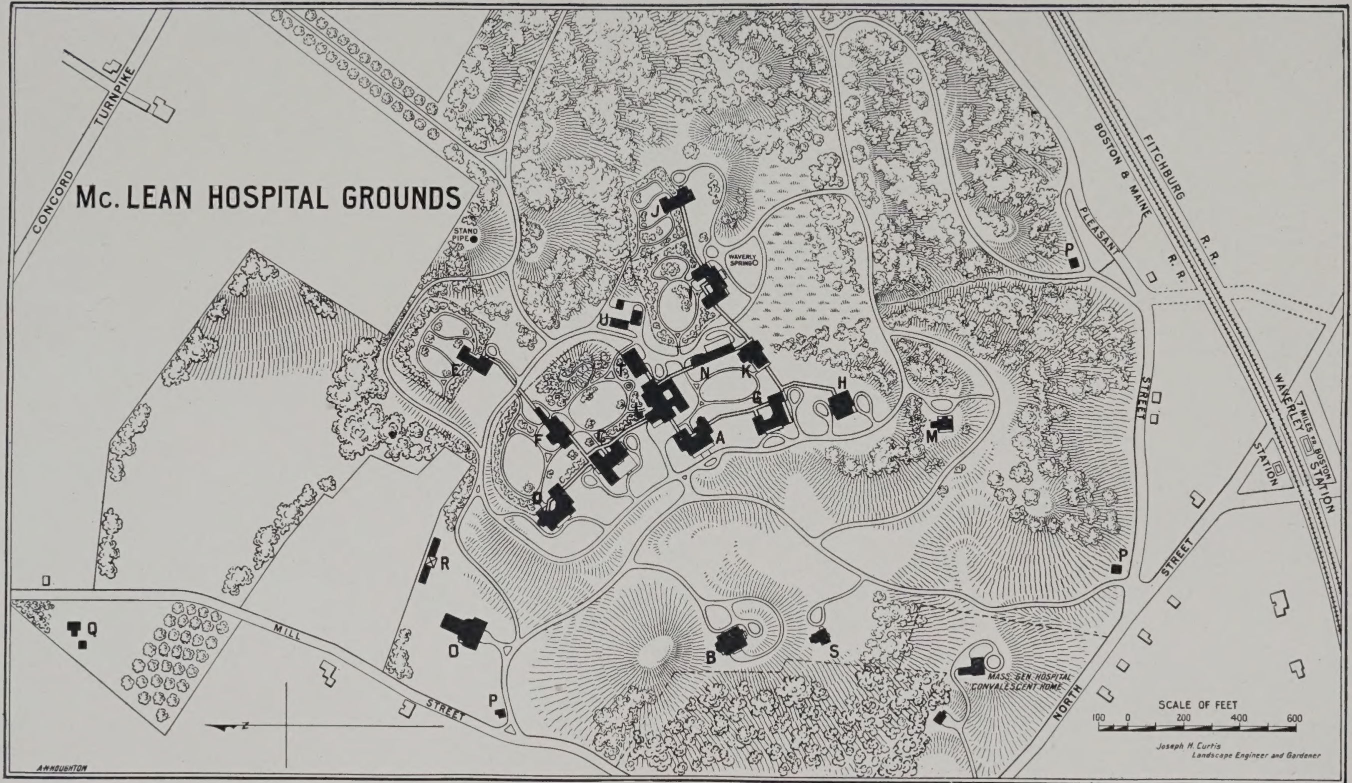
1901.

BOSTON:
THE BARTA PRESS.
1902.



PROCTOR HOUSE. MEN'S BELKNAP. PIERCE BUILDING. WOMEN'S BELKNAP. APPLETON HOUSE.

McLEAN HOSPITAL, WAVERLEY, MASS.



Mc. LEAN HOSPITAL GROUNDS

The Massachusetts General Hospital

Eighty-Fourth Annual Report

TO THE

TRUSTEES

BY THE

SUPERINTENDENT

OF THE

McLEAN HOSPITAL

AT WAVERLEY.

1901.

BOSTON:
THE BARTA PRESS.
1902.

The legal title of the Corporation is

"The Massachusetts General Hospital."

All gifts and bequests, if without restriction, will be used as the Trustees deem most for the interest of the Corporation and its Beneficiaries.

362.2
M22
v.84

27 AP'14 NUB

TABLE OF CONTENTS.

PAGE.

ANNUAL REPORT OF SUPERINTENDENT, McLean Hospital 5

" " " TRAINING SCHOOL FOR NURSES, McLean Hospital 76

FOOD, expense of, at McLean Hospital 75

MCLEAN HOSPITAL. Officers of 89
  Superintendent's Annual Report 5
  Occupation of Patients at, — Gymnasium, etc. 39
  List of Papers Published by the Medical Staff of the McLean Hospital since 1880 51
  Papers for Publication 54
  Articles Descriptive of McLean Hospital and its Work 54
  General Statistics of 1901 55
  Admissions, Discharges, and Results for ten years 58
  Parentage of Persons Admitted 60
  Residence of Persons Admitted 61
  Civil Condition of Persons Admitted 61
  Occupation of Persons Admitted 62
  Causes of Disease in Persons Admitted 63
  Admissions within the year 64
  Ages of Patients and Duration of Insanity 65
  Forms of Mental Disease of Patients 66
  Discharges Classified 68
  Causes of Death 69
  Recoveries Classified by Duration of Disease, etc. 70
  Deaths Classified by Duration of Disease, etc. 71
  Admissions and Discharges since Opening of Hospital 72
  Annual Admission since Opening of Hospital 73
  Relapsed Cases Admitted and Discharged 74
  Cost of Principal Stores, three years 75
  Training School for Nurses. Annual Report of 76

OFFICERS OF MCLEAN HOSPITAL 89

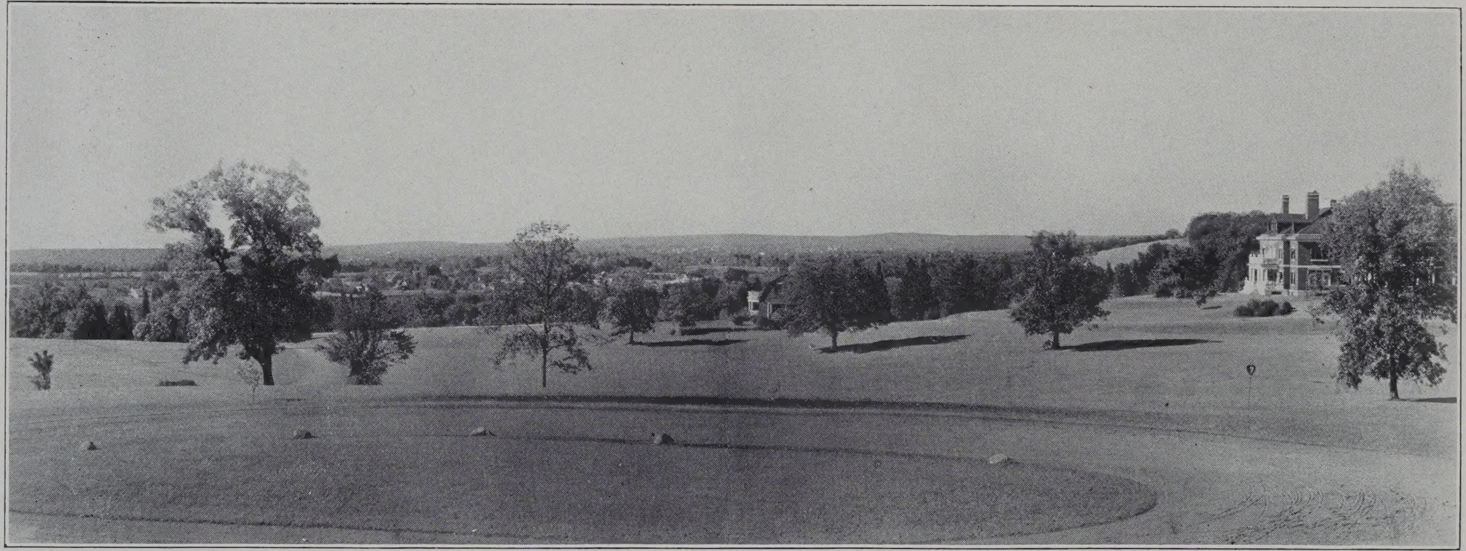
PATIENTS. McLean Hospital. Admissions and Discharges 56
  " " Voluntary 57

STORES. McLean Hospital. Quantity and Cost of, three years 75

SUPERINTENDENT MCLEAN HOSPITAL. Annual Report of 5

TRAINING SCHOOL FOR NURSES.

  Of McLean Hospital. Annual Report of 76
  " " Admission to, Training and Instruction 80
  " " Pupils Employed and Paid 83
  " " Diplomas to Graduates 84
  " " Course of Instruction 85
  " " Order of Exercises for Men 86
  " " " " " " Women 86
  " " Subjects of Lectures 87



VIEW FROM ADMINISTRATION HOUSE.

ANNUAL REPORT (EIGHTY-FOURTH)

OF THE

SUPERINTENDENT OF THE McLEAN HOSPITAL.

To the Trustees of the Massachusetts General Hospital :—

The following report, with tabular statements relating to the number and condition of the patients treated in the Hospital during the year 1901, is respectfully presented. The items of special interest, included in the results given in the tables, will be noted in the remarks upon them, following the more general statements concerning the present condition and prospects of the Hospital.

The sixth year's work in the new Hospital at Waverley has more than maintained the remarkable results gained in the previous year, 1900. A brief summary of them will show the most prominent and pressing need of the Hospital at the present time. While the number of admissions in the last year was not materially different, there was a slight increase in the whole number of cases treated, 330 ; and the daily average number present during the year, 168, exceeds the rated capacity of the Hospital. The activity of the work is further indicated by the larger number of patients transferred to other hospitals, showing a growing tendency to seek admission here for the first care of cases offering doubtful hope of recovery. This class of cases, and those of elderly people whose coming here has been invited by our success in treating the conditions of troublesome mental disorder associated with senility, have tended to keep down the recovery rate, which is reckoned upon the number of admissions of all kinds of cases during a given year. Four persons were discharged as "not insane." Yet the rate last year was .28. The aggregate of results gained, as to the number admitted and treated during the year, and the daily average being so near the maximum capacity of the Hospital, coincide with the fact that the houses which furnish accommodations of the kind most in demand have been kept constantly crowded. A larger number than usual of applications for admission had to be declined. This applies to women, especially, of whom twenty-one could have been received had there been room for them; there were a number of other women who would not have been obliged to go elsewhere when their relatives preferred to keep them here.

These conditions have been embarrassing at times with respect to the appropriate classification of cases. The arrangement of rooms for the proper grouping and isolation of special cases is ample and could be more satisfactorily used for this purpose if there were other accommodations for those who are in the more quiet and comfortable conditions. All these considerations show the increasing need of another house for women. If this could be provided, it would ease the situation in many ways, affecting both the internal management and the public satisfaction, besides enlarging the amount of service that could be rendered to those who seek the benefits of this institution.

The Hospital is beautiful for situation, with its forest and lawns and distant views. The inner comfort and attractiveness of the houses are in harmony with their external appearance, which has been made as home-like as possible by giving each of them an architectural character of its own, and by separating them from one another so that they are like residences. The two buildings that form a "gymnasium" for each sex, convenient of access in all weathers, are used as casinos or recreation houses; but besides such purposes which include, for women, rooms for drawing classes, art rooms, sewing room, and billiard room, — and for men, reading and smoking and billiard rooms and workshops, — there is in each a large room for gymnastics, furnished with proper apparatus. The practical application of medical gymnastics and physical training is systematically carried out in all appropriate cases. In connection with the work of the instructors of both men and women nurses in these methods, a bathroom well equipped with appliances for hydro-therapeutics is in regular use. The nurses are taught the methods of this treatment as a part of their training. In conjunction with their work in these houses of recreation, the instructors have charge of all that pertains to the occupation of patients, for indoor work and entertainment, and for outdoor recreation in excursions, sports, and games. Convalescing patients and others have the freedom of the Hospital grounds; some have larger liberty. Such are the provisions made, and the conditions afforded, that constitute the environment in which the patients find themselves. With the attentions of carefully trained and companionable nurses, a mode of life is thus created that is attractive and remedial in itself. Its motive is sympathetic and encouraging, and thus many, by merely being under the influence of such surroundings, are kept from yielding to the baneful tendency to indifference and inertia that characterize certain of the forms of illness treated here.

Any one who comes to the Hospital as a visitor, or who, through interest in its residents becomes acquainted with its inner life, may see and appreciate the full meaning of the things indicated in the foregoing description. In such an order of existence the patient feels himself sustained, and persuaded to yield, to those who have the care of him, his responsibility for himself, concerning which he may have become morbidly sensitive. Such are the aspects which the life here is made to bear to him. These are the effects of underlying causes not readily apparent. That these conditions for the doing of our medical work are the outcome of a set purpose, from the earliest days of the Hospital, need not be told to any one who is familiar with its history and the work of Wyman, Lee, Bell, Booth, Tyler, and Jelly. Such aims, indeed, are common to the hospitals of this kind. But there is a certain interest in reviewing the course along which an individual institution has won its way toward the perfecting of its work. It seems fitting also that, in an account of the doings here in the first year of the new century, their measure should be taken as an outcome of the labors of more than four-fifths of the century past. More than one-fourth of the institution's history (since 1879) has been covered by the present executive administration; prior to this there is an ample record, but it is of the latter period that a living witness may chiefly speak concerning what experience has taught in the efforts for advancement. From the time of its opening as the McLean Asylum in 1818, when it was the fourth institution of its kind in the country, it

WOMEN'S GYMNASIUM.

always held a leading place in the progress of the times. Its attractive location in Somerville, with its terraced garden and its grove of great elm trees, upon a hill overlooking the city and harbor of Boston, made it notable in this regard; its possession of the Bulfinch mansion, and the additions from time to time of detached buildings for patients, gave architectural dignity as well as it anticipated the modern idea of the "cottage plan" of construction.

It is of special interest, in the present review, that for a number of years prior to 1880 there was much discontent concerning the care of the insane; the desire for progress by those in charge of the institutions was manifested outside of them by an active and intense public criticism. Out of the demand for relief from the alleged unjust incarceration of patients there grew a better understanding of the needs of the hospitals, and legislation for the better protection of them as well as the patients, by a better definition of their mutual relations. This legislation in Massachusetts was well considered from the first, and that it laid down correct principles is amply proven by the subsequent successful working of the law for nearly twenty-five years. The essential provision that interests us now was simply that all commitments to the hospitals should be made by the courts and not upon medical certificates alone; that the certifying physicians, properly qualified, had no function but to declare opinions; that the hospitals had no responsibility with respect to detention except to receive the patient in obedience to the order of the magistrates. Thus the patient, held by the impersonal authority of the law, no longer saw the Hospital physicians as arbitrary keepers, but more clearly as his friends and helpers. There was a provision later for the admission of voluntary patients, which was of great advantage in aiding to promote happier relations between the patient and the Hospital. This is especially true here; beginning with only one patient received under the voluntary system in the first year, 1881, there were thirty-three such admissions in 1883; and ever since then one-third to one-half of all have been received upon their own request.

The favoring legislation made it much easier to promote the helpful personal relations between physicians and patient that are the aim of all such hospitals. It was in 1880 that the special studies of our problems were practically begun, of which the outcome is presented in the Hospital to-day. In 1884 it was felt that certain beginnings of them were worthy of being presented to our professional neighbors at a meeting which the Middlesex South District Medical Society was invited to hold at the old asylum at Somerville. What was then said was largely promissory. Another meeting, in the new Hospital at Waverley, last October, gave fitting occasion for an account of what has been accomplished in twenty-two years of the same administration. It marked the recent attainment of long contemplated plans of organization of the medical work, the course of which has been noted from time to time in these reports. The results have now reached a stage that entitles them to be recorded here, in brief but substantially as they were stated at the above-mentioned meeting of the physicians of our district.

It was first sought to make life in the Hospital as agreeable as possible to the patients. It was the prevailing rule in the history of such hospitals that visiting of relatives and friends should be limited as being liable to cause interference with treatment and discontent; the practise had softened the rule in some hospitals, especially at McLean. But it was determined to recognize the true principle by reversing the rule, and saying that visiting is normal and should be practised regularly from the beginning, only limiting it when actual ill effects were seen to be liable. There has been since then no concern as to scenes of undue excitement at meetings after long separation; they did not occur. It has been easier to keep patients until they are really well enough to go; indeed, under the law permitting them to visit their homes, as long as sixty days, the practise was adopted of beginning early with short visits and lengthening them. The result is that the stay in the Hospital has been reduced in recovering cases. In regard to correspondence a like principle was adopted; every patient was made to know that there was no bar to such communication so long as proper and acceptable letters were written to proper persons. These principles were discussed in my annual report for 1882. All responsible representatives of the families of patients became at once sympathetic and helpful assistants to the physicians. There was no looseness in proper restrictions under this practise. There was an end of the friction and discontent that was made so prominent in the criticisms of hospitals in the previous decade. The patients have not been harmed, but benefited. No more right of coercion being assumed in these particulars than would be claimed by a family physician in general practise, the relation of the Hospital to the patient and relatives became more easily one of mutual confidence.

In the nursing service it was held that the services and conduct of the nurses must be such as to make the voluntary patients willing to stay. The value of the training of nurses to be useful assistants to the physicians became obvious. Nowhere in the world was there a successfully organized school for such training in a hospital for the insane; many such attempts had failed. The system was organized here in 1882; early in 1886 was graduated the first class of women nurses; in 1888 of men nurses. In 1901 the graduates numbered 145 men and 268 women whose training has qualified them for successful professional work in both general and special nursing. In addition to the training here, 72 of the women graduated also at the Massachusetts General Hospital. Since 1886 there has been a wide extension of the system of training nurses in the hospitals for the insane in this and other countries. In my reports for 1881 and following years the gradual development of this system and the methods by which it was made successful are described.

The history of the Hospital in its material affairs is interesting and significant. Notwithstanding the very adverse conditions at Somerville, — the old buildings and the growing demand of the time for better accommodations, and the increasing discomfort of the surroundings there, — the Hospital steadily gained in patronage and income. This was freely spent in the increase of the nursing service, both night and day, in addition to the staff, and in improvements in the buildings though reducing their capacity. In 1895 there was a substantial credit in the treasury that aided largely in defraying the extra expenses incident to the removal to Waverley and the first years here. It was always the purpose of the Hospital to improve its work in every way possible. The wisdom of its governing authorities was shown in the larger returns that followed generous investments in improvements and in enlargements of the service. In 1879 the Hospital staff included the superintendent and two assistant physicians; sometimes a student acting as an apothecary, a steward with an assistant and a clerk, and a matron. Now the staff includes, besides the superintendent, four medical assistants with each having a junior assistant, a superintendent of nurses and an assistant, two instructors in gymnastics, one instructor in cookery, a hospital clerk and office assistant, a purveyor and assistant, an apothecary, a librarian, and two stenographers. This increase from eight to twenty-two persons includes four added since coming to Waverley, and indicates the character of the new work that is being done.

In the new Hospital are to be seen results of the studies and practical experiments in construction in the last fifteen years at Somerville. The capacity at Waverley being somewhat less, a considerable reduction in the number of patients was made at the time of the transfer; but now the houses being fully occupied, the increase of cost is nearly equaled by the larger earnings. Experience has proved that it is only needed to increase the earning capacity to make the Hospital wholly self-supporting.

In the foregoing outline of the Hospital's history in recent years are summed up much of the accomplished results of work set forth in detail year by year in the annual reports. But the manifestations of the Hospital life that any one may see who comes here are the studied effects and expression of the inner purpose to which allusion has already been made. One may see here the distinct and consistent outgrowth of the Hospital idea; a medical purpose has animated the efforts for advancement in accomplishing what has been done. To understand the present condition and aims of the Hospital, it is needful to know how the medical work was developed from the usual methods of the Hospitals to the larger organized system now in operation. The lesson taught by these experiences is important enough to afford reason for reciting them here. The problem is a difficult one, and one way of attempting to solve it is here presented.

In the early years of the decade 1880–90, the question was, What can be done to break away from the customary routine of institution work and take part in the general movement for progress in medicine? In the few hospitals where "scientific work" was deliberately undertaken, the prevailing conception of it had led to the establishment of pathological laboratories for anatomical studies, and the appointment of pathologists. For explanations of mental symptoms as a clinical aid this field seemed practically barren. Moreover, there was not sufficient material to require a special department for such investigations in so small a hospital as this. In default of anatomy, physiology was the obvious recourse; but on turning to mental physiology as a standard from which to estimate mental symptoms, the current teachings of psychology gave only the uncertain guides of introspective philosophy. There were available, however, the general principles of "modern scientific medicine," — the observation of the clinical facts of mental as well as physical manifestations of disordered function; it was believed that the empirical method must lead by induction to some recognizable general principles. In the attempt, through the years of this decade, to make original studies and analyses of mental symptoms, the text-books were disappointing as aids. The prevailing conceptions of mental disorders still held to the terms "melancholia" and "mania," denoting respectively "states of mental depression" and "states of mental exaltation," as representing the two most common disease-forms that could be recognized. The process of the inquiry by which new conceptions were sought has acquired a certain interest because these formed the basis of the working hypothesis, upon which the special work of the past twelve years has been built up in our clinic and laboratories. The problem presented itself in two chief aspects: first, the prevailing conceptions and teachings of the principles of psychiatry; and, second, the formulation of new methods that, it was hoped, might be devised.

The first step was to consider the existing views of the problem. It was determined to approach it from the broad view of general medicine; it was held that the alienists, being in truth general physicians, should not limit their field to neurological research, nor be content, as its followers, to concentrate their forces upon its frontier, though its progress had been brilliant in its anatomical explorations. The alienist has been reproached because he has not done so; this seems still to be expected of him, and it is little understood why he cannot seek explanations there. In these later days there still seems to be a difficulty in comprehending that in general practise anything claiming the dignity of "scientific work" can be done without a microscope. Certain principles were to be recognized, of course, as fundamental. It was necessary that investigations should be pursued in accordance with the principles of general physiology and pathology. The biological conception of man as a complex mechanism requires that the body, with its mechanical and chemical functions, must be regarded as having associated with it the mental life. "All mental activity must have its physiological side and anatomical substratum in the forms of nervous mechanisms and combinations of cells, especially of the cerebral cortex." When we conceive of changes from the normal action of the mind, we have to conceive of corresponding changes in the physical basis of mind. In the study of disease it is a fundamental proposition that, according to the principles of general pathology, when a disease-form is definitely recognized, we must assume as corresponding therewith a definite underlying disease-process. This distinctly implies, from the point of view of the pathological anatomist, structural changes. But it is impossible to explain mental disease-forms and mental symptoms in terms of structure because we have no knowledge of the relation between normal mental functions and the anatomical arrangements of the brain. One of the fundamental postulates of Dr. Folin's work in our chemical laboratory bears upon this point: "That microscopically visible structural changes in any tissue, or in the cells of any tissue, must be preceded by more or less pronounced metabolic changes is surely self-evident. Metabolic changes are chemical changes. These are the physical exchanges and transformations that take place in the physical units of matter — the molecules; and the molecules are beyond the ken of the microscopist." It can only be affirmed, as Wundt says, that psychological phenomena run parallel with physiological facts, but that on account of their different natures there is no prospect of bridging over the gulf between the two. If, on the other hand, we adopt the opposing psychological theory of interaction between these two modes of function, it is still impossible to explain how they react toward each other. While we should spare no pains in the promotion of anatomical research in respect to our special clinical work, as general physicians we must see that neurological histology has, at its frontier, reached a stage of slow progress and much speculation; and we know that it did not aid us twenty years ago and is not doing so now, in practical therapeutics. In default, therefore, of adequate knowledge of the underlying anatomical and physiological mechanisms of the mind, the only recourse was to the study of their manifestations in normal mental action, and to compare with these the mental symptoms; mental pathology must be studied by the side of mental physiology. It followed, then, that the first stage in a new study of true mental diseases was the determination of disease-forms as constituted essentially of mental symptoms, the true clinical picture in each form being made up of a characteristic combination of the essential elements. In our new empirical attitude toward the broad field of inquiry, the first studies were addressed to the observation and analysis of mental symptoms in comparison with normal manifestations in the same individual.

The second consideration presented by the problem concerned the practical efforts to solve it. While conceptions of the true attitude toward it were being gained, many long and intimate studies were made, particularly of neurasthenia, melancholia, and mania; besides these a study was made of a special group of cases of imperative ideas. The analytical method of all these clinical studies is shown in an article on

"Insistent and Fixed Ideas," published as a preliminary communication, in the *American Journal of Psychology* in 1888. (A list of contributions concerning the work of the Hospital, by members of the medical staff, will follow this report.) It is quite impossible here to state the argument by which certain conclusions were reached, or, to indicate the order in which their several parts were evolved in framing the plan for the clinical work. But this is a point of interest in respect to the inquiry to find new methods, and an indication of the course in which progress was made may be given by noting some of the more significant events.

In 1880 undergraduate medical internes were added to the service as clinical clerks, and assistants to the physicians. In 1881 the employment of women nurses in men's wards, previously in practise in two of them, began to be extended with the addition of ward maids as in general hospitals. The usage became general within a few years, and now only one ward of the whole thirteen is without this service. This extension of the nursing service included, from the first, the providing of all the wards with nurses at night. It was made the rule that the doors of patients' rooms should not be locked except in special cases. Another important point, in carrying out the Hospital idea, was the change of name from "attendant" to "nurse." The patients were frankly told, "You are sick, you may get well." In 1882 the Training School was organized. A beginning was made of the use of gymnastics for men, and this was so extended that, in 1888, a practical gymnasium was provided for each sex, with systematic instruction in physical training, massage, etc., for the nurses, to fit them for applying these methods of treatment.

Dr. Gannett was appointed pathologist, and for several years came to the Hospital to make autopsies, and to direct the work of the staff in a small laboratory provided for microscopy, etc. It was in this year that practical conclusions were reached in the application of the "rest treatment" in neurasthenic conditions. Dr. Weir Mitchell had written that in cases of melancholia with bad nutritive break-down he gave up at last the effort to treat in this way distinct cases of melancholy. He might use massage or electricity, but did not seclude or rest these cases. Dr. Playfair's success in London with this treatment was qualified by disappointment in cases having some definite mental disease; after a short trial in melancholia he felt bound to relinquish the treatment. These cases, however, require long courses of treatment at the best, and in our use of the regular methods of the "rest treatment," it was found that only some modification was necessary to adapt it to different conditions; for example, cases of restless and agitated melancholia would suffer greatly under enforced rest. They needed the relief of change both physical and mental, although great good is gained in counteracting exhausting effort by much rest in bed. It should be noted that this was a consistent continuation of the practise of leading alienists since the time of Pinel and Tuke. After 1840, "supporting treatment," with nutritious and liberal diet, was the regular practise. The "rest treatment" has been a standard method here. In 1883 the Training School became indebted to Dr. Douglas Graham, for instructing the superintendent of nurses and her assistants in the practise of massage, to qualify them for teaching it; also for his later service in giving a like course of instruction to the medical staff. This provided for the teaching of the men nurses for several terms.

In 1884, at the meeting already mentioned of the District Medical Society, some suggestions were offered in regard to the preventive treatment of conditions liable to lead to insanity. The observation was made that "in nervous exhaustion a condition sometimes appears in which there is a kind of anæsthesia of the sense of fatigue. Patients and their friends are unaware that the nervous irritability of fatigue is being allayed by activity, and not the fatigue itself, with consequent serious continuance of overwork." This and subsequent observations led to certain conclusions which, about 1888, became clearer in the light of Ribot's contribution to the study of "diseases of the personality." This mention is made because these data pointed to the importance of the relation of disorders in organic states and sensations to mental states. It was upon such studies as these that the plans were formed and carried out in the subsequent progress of our medical work. In 1886 the first class of trained nurses was graduated; some of them had been under training for four years or more. After that the course was made two years. In the same year began the teaching here, in lectures and clinics, that melancholia and mania are not two diseases, but that they constitute one disease-form manifested in the two stages, or principal types, of depression and exaltation. Some writers had held this view. That these contrasting states of feeling, in the disorders of the emotional nature, do not form a criterion for the differentiation of mental diseases is becoming, in recent years, the accepted belief. The recognition of this fact had an important bearing, after 1886, upon the course of our progress here.

It was during this decade, 1880–90, that the new teachings of physiological psychology became prevalent in America by an intense and rapid movement starting from the establishment of the first psychological laboratory by Wundt in 1879, at Leipsic. The experimental and empirical method of determining the data of psychology gave great force to the idea that the methods of modern scientific medicine should be applied to the study of abnormal as well as normal mental phenomena. A course of five months in these studies at Johns Hopkins University, in 1887–88, was of great value in directing the plan of our subsequent work.

The year 1888 was an important one for us because certain conclusions were reached as the outcome of studies of the previous eight years. These conclusions, already alluded to as forming the basis of a working hypothesis, were presented in 1889 in an address to the American Association of Superintendents of Hospitals for the Insane; they were afterwards elaborated in part and published in a series of papers in the *American Journal of Insanity*, the last of which constituted the Shattuck Lecture of 1891, on "Neurasthenia and its Mental Symptoms." It was in these studies that the foundation was laid for the work that followed. It was assumed that the normal reactions of the nervous and mental mechanism should be regarded as the physiological basis for the study of mental symptoms. While great interest was then growing up in current psychological discussions of "emotional expression" in its bodily effects in normal conditions, too little attention has even yet been paid to the mental effects of changes in the organic sensations that, commonly unfelt in health, make themselves known by the emphasis of their morbid intensity, and are even more conspicuous by their absence. Ribot had written upon "diseases of the personality," but it was the alienist who could best observe these phenomena and their close and important relation to disordered mental states. Though our knowledge of the organic sensations is obscure as compared with the sensations from the special senses, the patient's descriptions of these general sensibilities have equal value with other subjective data of which he gives account. It has long been known that disturbances in some part of the organism itself may act as primary factors in determining morbid feelings; and it is the sum of all these disordered organic sensations that is represented in the emotional tone. In certain forms of insanity we see the morbid state of feeling most clearly manifested. In connection with exhausting conditions and diseases causing progressive depression of the vital functions, we see not only a consistent depression of the emotional tone, but in some cases an insane exaltation and an inconsistent feeling of well-being. The chief propositions of the Shattuck Lecture rested upon these principles. Not only may there be a morbid intensification of the sense of personality, as the result of an "irritable weakness," but also alterations and losses (anæsthesia) of normal organic sensations. Of special importance, it was held, was the primary physiological fact that the general feeling of well-being or ill-being has much to do in determining the dominant tone of mental feeling; in other words, the emotional or affective tone in the normal mental life. We should expect, therefore, to see in pathological mental states the effects of changes in organic sensations caused by conditions of nervous exhaustion, disorders of nutrition and metabolism, auto-intoxication and toxæmia. Inasmuch as chemical changes underlie both function and structure, alike in normal and morbid conditions, all this pointed to problems of physiological and pathological chemistry as logically fundamental to an understanding of our clinical cases and their more intelligent treatment. Such was the outcome of the observations noted in 1884, which led to the studies of the organic sensations as the medium through which bodily states affect emotional states, and constitute the "sense of personality." Out of these studies, in turn, grew the practical efforts that now remain to be mentioned.

It was in 1888 that the more direct efforts were made to put into effect the new conditions which had been created, in respect to the improved nursing service and otherwise, and the purposes that had been long in framing. An arrangement was in progress for Dr. Joseph Jastrow to spend a year here in experimental work in pathological psychology, but a University appointment became available for him. Further pursuit of the matter resulted in the appointment in 1889 of Dr. Noyes as assistant physician and pathologist; he went to Europe for eight months, and his studies in psychology at Harvard and Johns Hopkins were continued at Leipsic and Heidelberg. He procured the equipment for the new laboratory that was being built in his absence, which included rooms for microscopy, experimental psychology, and chemistry. In the selection of the apparatus required for such a laboratory, and in respect to our special purposes and methods for the application of experimental psychology, we were indebted from the beginning to Dr. Stanley Hall. In this year Dr. Tuttle also spent a vacation in Europe and visited many hospitals; his report on "Two Days at Gheel" was published by the State Board of Lunacy and Charity in its twelfth annual report. In the Hospital report for 1890 the work was stated to be in progress and its purpose as "including problems relating to the study of the prodromic and acute stages of insanity and the remedial measures that best effect the arrest of exhausting processes and promote the restoration of bodily and mental health." It was also stated that "these questions involve a study of the laws of nutrition, rest, and physical exercise, and the exact observation of the conditions attending progress toward recovery; such problems as these are strictly physiological and lie at the foundation of scientific psychiatry, as much as those relating to the structure and pathology of the nervous elements." The seven members of the medical staff organized a medical society, with an adaptation of the "seminary method" for conferences upon the questions involved in the new investigations, and for reviewing the literature of chosen subjects.

The report for 1891 notes the work in the preparation of an article by Dr. Noyes for the *American Journal of Psychology*, "On certain peculiarities of the knee-jerk in sleep in a case of terminal dementia." The patient upon whom the observations were made was subject to periods of depression and exhilaration. It was stated in the report, concerning the laboratory work, that its "general bearing is in the direction of an elucidation of the conditions of debility and fatigue of the nervous system, including vaso-motor variations and the periodical mental states of exaltation and depression in certain cases of mental disease." It was further noted that "a series of investigations has also been begun in chemical pathology, the present purpose being an inquiry, through urinary analysis, as to the relations between certain common mental symptoms and toxic influences resulting from disorders of nutrition and elimination. The general purpose of this extension of the laboratory work, in connection with clinical observations, is better to determine the therapeutic measures applicable to the relief of mental diseases." We were especially indebted to Professors Wood and Hill of Harvard Medical School, for visits to the chemical laboratory, and counsel in regard to methods; acknowledgment should also be made to Professor James, who was consulted in regard to the psychological aspects of our problem; and to Professor Bowditch, for the encouragement given in the initial stage of the whole plan, whose comment upon it as "far-seeing" and promising went far towards procuring the decision to undertake it. To other counsellors we were under obligation as the work went on, especially to Professor Chittenden for his courtesy on the occasion of a visit to his laboratory at Yale and for his approving advice as to there being a proper field for research here for an expert in physiological chemistry. The investigations in our laboratory were carried on for a number of years by medical internes with results from long series of quantitative analyses in a considerable number of cases. The plans for the new Hospital at Waverley were being studied also in 1891, in the light of the experimental arrangements at Somerville. It was stated that "the general end in view was the improvement of the medical and nursing service, and of construction, etc., as best to meet modern requirements." It was proposed to include "a more effective laboratory," and that each gymnasium should be made larger and more attractive as a place for entertainment and pleasant occupation; and that they should be fitted with appliances for the practice of physical exercise, and with complete bathing arrangements for all the special purposes of a hospital for nervous and mental diseases.

In the annual report for 1892 it was again noted in the report for the year, that "if the elements of our problem are to be fully comprehended, there must be included not only the study of the lesions in nervous pathology, but of the working of the vital processes of waste and excretion, nutrition and repair, to which the new science of chemical pathology now promises to lend its aid." Some of the results of the work in the chemical laboratory appeared in a paper on "Kidney Disease and Insanity," by Dr. Tuttle in 1892. The change of name, this year, from "Asylum" to "Hospital" was a significant event. At this time substantial progress had been made in the building of the new Hospital at Waverley; this required so much attention that it was necessary to suspend the publication of the studies represented by the work on "Neurasthenia," in 1891, which was preliminary to the intended discussion of the acute forms of insanity. Dr. Noyes resigning in 1893 to accept a clinical appointment in another institution, the laboratory work so far undertaken was also suspended, except that the chemical investigations were maintained. In this year, 1893, the new laboratories at Waverley were planned to include eight rooms, providing for all the lines of research that have been mentioned in this account. It was noted in the annual report for the year that "in preparation for the laboratory work Dr. August Hoch, formerly neurological assistant at the Johns Hopkins Hospital,

ENTRANCE HALL AND CONSERVATORY.

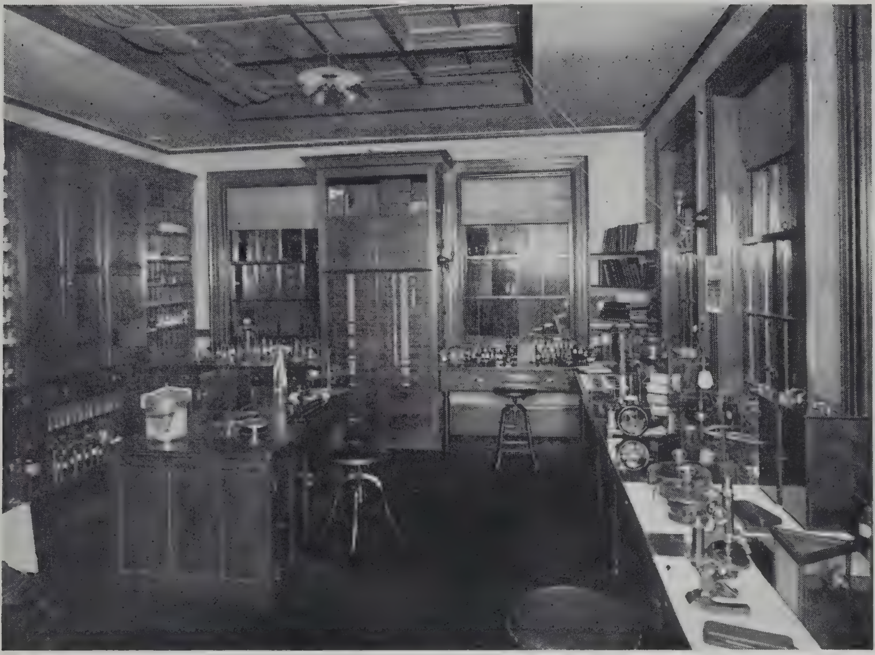
WOMEN'S GYMNASIUM — PARLOR.

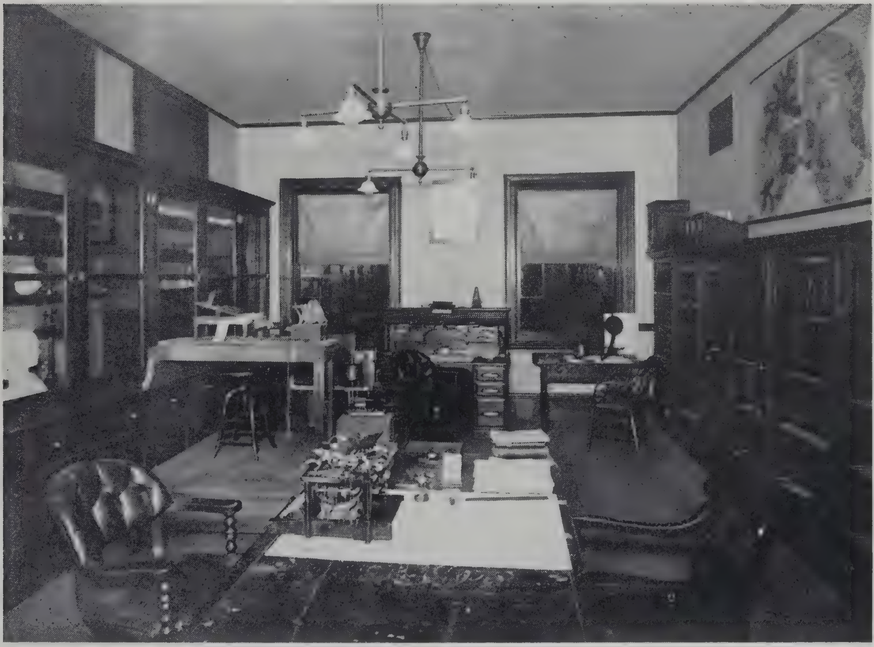
who has been in Germany during the year, will continue his special studies at Leipsic with Professor Wundt; he will later go to study with Professor Mosso at Turin, and elsewhere. He is expected to return to the Hospital for duty in the latter part of 1894, in time to aid in fitting up the new laboratory department." The plan included several months at Kraepelin's clinic at Heidelberg, and work in pathology with Nissl. It was in this year that resident instructors in gymnastics and cookery were employed, in preparation for the improvement of the service at Waverley. A special kitchen being provided for the training school, each nurse had a course of instruction for a month; the instructor inspects all house kitchens and dining rooms and the serving of food.

The interesting incident in 1894 was the publication in the *Année Psychologique* of a report by Professor Delabarre on psychological laboratories in America, including that of the McLean Hospital as being among those not attached to universities. It was said to merit particular mention, and to have been established for the clinical needs of the Hospital, and strictly devoted to researches. "It is the only one in America which unites psychiatry and physiological psychology. In Germany there exists only one like it, — that of Professor Kraepelin at Heidelberg. It attempts to combine the studies of the clinic and of neurology with those of chemistry and anatomy on the one hand, and with those of psychology on the other." The purpose was said to include the study of the "initial conditions which lead to mental disorders as departures from normal mental function"; and "in the dependence of these upon general physiological processes it is supremely necessary to study both physiological and pathological chemistry, in their direct and indirect relations to mental changes. The fatigue question and its relation to auto-intoxication is believed to be of primary importance in psychiatry." A full list of the equipment of apparatus, etc., is given in the report which is substantially included in an article by Dr. Stanley Hall on the "Laboratory of the McLean Hospital," as it existed at Somerville, before removal to the new Hospital; the article was published in the *American Journal of Insanity*, in 1895. In this year several contributions, significant in their character, were written and published by members of the medical staff. Certain conclusions from the work of the chemical laboratory for five years, 1891–95, were presented in an article by Dr. Hibbard: "A study of the excretion of urea and uric acid in melancholia, and a case presenting recurrent periods of confusion and depression." There was also published, from the seminary work of the previous winter on the subject of the disorders of nutrition, a contribution by Dr. Abbot on "Immunity and Cure"; also two articles by Dr. Hoch relating to his work in experimental psychology at Heidelberg. Other work of the laboratories was represented by "A study of the blood in general paralysis," by Dr. Capps, published in 1896; also, in continuance of that investigation, "A study of leucocytosis associated with convulsions," by Dr. Burrows, in 1899. That the last ten years have been increasingly productive of contributions to the literature of our work, which are not mentioned here, may be seen by reference to a full list of titles appended to this report.

The removal of the Hospital to Waverley in 1895 was a great epoch in the history of all its work; it meant putting into effect long studied preparations, and favoring conditions in the new environment. In the clinic and laboratories it amounted to beginning anew in some respects. The work of the pathological laboratory was chiefly devoted at first to anatomical pathology; the development of the method of clinical conferences, with the introduction of the teachings of Kraepelin, were reinforced by Dr. Hoch's second visit to Heidelberg in 1897. The situation, as it can now be reviewed, was one of peculiar interest. The problems which fifteen years before were obscure, had now become more clearly revealed; "conclusions" had been reached, problems better formulated, and plans made; laboratories and means for research were provided, which could not have been asked for except for well-approved reasons. The story is worth the telling because it is that of a living "movement"; it is the history of the Hospital for nearly a quarter of a century. It can be presented but imperfectly to the general reader in respect to certain of the medical and psychological problems, and this is not the place to state them satisfactorily. Yet it was the conception of them that afforded the reasons for what was done. Moreover, with only a fair beginning now made, it should appear that the animating purpose still exists, that a definite plan is being carried out, and that it has a claim for support. An attempt to make a brief statement may interest the professional reader. It may be said that the procedure of the first fifteen years had been put in abeyance in its course in some respects, in 1892, because of being interrupted, as before stated, by the building of the new Hospital and otherwise; and that a beginning was made of a new procedure, which has covered the last seven years. The account that has been given so far makes possible a better comparison of the two periods, and a briefer statement of the later incidents. The former studies had the disadvantage of having been made under limitations of the time that could be devoted to them, and without the later system of stenographic and typewritten records. Yet there was much study and recording in the former period; a characterization of it for the purpose of comparison will require a summing up of particulars of the medical work in the foregoing account.

The problem was first approached from the side of general medicine; the procedure soon took the form of studies to verify current views of disease-forms or to newly define them. In the analysis of clinical manifestations, and the search for explanations, recourse was had to the nearest normal standard, mental physiology. Certain "conclusions" of the first stage of the procedure have been stated, pages 20-23; they led to practical measures for the better study and treatment of conditions common to neurasthenia, melancholia, and mania. But while the indications were plain as to the principles of treatment of disorders of nutrition, metabolism, and elimination, and suggested problems for investigation in pathological chemistry, there were other observations that have been mentioned, following that of 1884, which strongly reinforced the interest in the study of the organic or common sensations. For the sake of brevity of statement, the term "thinking processes" may be used to include the several obvious modes of mental activity of which the mind is conscious within itself as occurring in the "stream of consciousness"; it may include also the expression of those reactions in speech and conduct, for it is by this that the inner meaning is interpreted. Not only





PATHOLOGICAL AND PSYCHOLOGICAL LABORATORIES AND LIBRARY.

did it seem logical, from the first, to analyze disease-forms on the plane of the thinking processes, but it appeared to be possible to recognize and study the several elements of a group of symptoms showing the relation of these mental processes to certain underlying physical facts. It was the striking alterations in the sense of body — the organic or common sensations, and the manifestations of corresponding changes in the mental and emotional reactions — that demanded attention. The physiological principles involved may be stated as follows: "sensations derived from the bodily tissues and organs possess strong affective tone"; "total common sensation is the result of many component sensations"; "common sensation being based on perceptions of the body itself, all forms of such sensations present pre-eminent attributes of physical pleasure or physical pain, and all are linked closely to emotion."

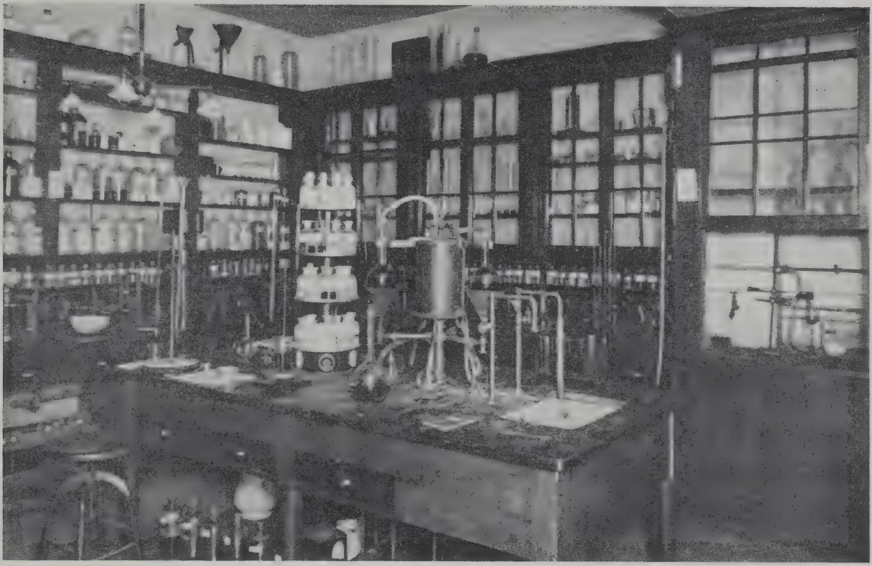
In the earlier investigations there was observed not only a consciousness of sensations unfelt in health, such as increased sensitiveness, perverted sensations and anæsthesias, but there were consistently corresponding changes in the emotional tone in neurasthenia, melancholia, and mania. It was observed that while each of these diseases presented differences in the combinations of symptoms as a whole, the minor groups of symptoms could be ascribed to different sources; as by a genetic method each could be traced in progressive degrees of intensity, or change through the different diseases mentioned, in the order of the severity of the conditions. While the evidence upon which these observations rested was, as it always must be, the testimony of the patient by speech and conduct concerning his own feelings, such data are as valid as any other relating to the inner experiences of which he alone can give account. The conclusion must be that the striking variations and contrasts in the disordered feeling-tone of melancholia and mania are representative of the varying totals of organic sensations in different cases. For this reason the unity of the disease presenting the two phases of depression and exaltation rests upon a basis of physiological facts. It should not be overlooked that there may be "bluntings and paresis" of painful as well as other organic sensations, even when the pathological irritants are present as stimuli of the nerve-organs concerned; in auto-intoxications as well as in the effects of drug depressants there may be anæsthesias of the sense of ill-being, with consequent toxic exaltation. The sum of the stimuli in certain of the variations in the pathological conditions are also represented in their effects of physical excitation or depression, agitation or languor. These considerations indicate that there are more "phases" than in two "depressive-maniacal insanity," or, rather, that the phases of exaltation and depression of emotional feeling do not coincide with those of excitation and depression of motor activity. In the earliest studies of the subject, it seemed important to consider the correction of abnormal organic states for the treatment of disorders of the emotional tone. This cannot be argued here; the principles were stated in the discussion of "Neurasthenia and its Mental Symptoms," in 1891; and in a paper on "The Mental Symptoms of Fatigue," in 1893.

When the further publication of these views was suspended in 1892, for reasons that have been stated, it was not to abandon them. It was consistent with the larger plan that a new period of more thorough study should be undertaken, as was done from 1895. But work upon the original "conclusions" or hypothesis was continued in clinical teachings and courses of lectures. The conceptions of melancholia and mania as representing the depressed and excited phases of one disease were not changed by the new teachings of the Heidelberg school. These teachings, however, did help greatly to clear away difficult questions by the recognition of traits indicating cases of dementing disease resembling but not belonging to the group of true melancholia and mania. One of the general results of this period appears in a paper on "Progress in the Clinical Study of Psychiatry," in 1899.

The later procedure, which practically made a new beginning of the work, started from the side of neurology and pathological anatomy. It introduced the special methods of psychological experimentation which Kraepelin had developed from his work as a pupil of Wundt; also, as already mentioned, the views of the problems of psychiatry held at the Heidelberg clinic. An attempt will only be made here to note some of the main features of the work, although this cannot do justice to its quality. It was based upon the conception of an underlying disease-process for every definite disease-form and aimed at differentiating mental diseases, each by itself, through long, diligent, exhaustive analytical studies of clinical manifestations of mental symptoms. Painstaking records, with great refinement of detail, were made in every case and discussed in the clinical conferences of the medical staff. A clear field was given for the new studies; no preconceptions were allowed to obstruct them. The method, proceeding upon the principles of general pathology and the empirical observation of clinical facts as in general medicine, was rigidly descriptive, and put all observed data on record. It appeared wisest to proceed entirely by induction from observation of clinical facts, the preconceptions of psychology being likely to lead astray. It was held that each accepted disease-form must exist by itself, have its own characteristics in the combination of symptoms, and in its cause, course, pathology, and termination. For example, no form of insanity "had anything to do with neurasthenia"; and pathological chemistry had only a later or final place in an inquiry which sought first to describe diseases clearly. But the newer conceptions of disease-forms came in contact here with the results of some years of clinical experience, and there was a wholesome readjustment of these conceptions with well-observed facts. They found here, for example, that melancholia and mania had been long regarded as constituting one disease, — a conclusion reached by a different line of observations, though by a like method. The new designations, "depressive and excited phases," were a contribution; and an equal one was the removal from that group of all cases in which a definite dementing process could be discerned. The remarkable result followed that in 1899, when a new edition of Kraepelin's work on psychiatry appeared, materially changed by omitting a somewhat elaborate classification and reducing disease-forms to a few simple groups, it was found that substantially the same conclusions had been reached here. By that time our studies had become more independent of all teachings, while gathering from all the contributions that found verifications in the proven facts of our own clinic. The method of study continued to be very strictly analytical, seeking to recognize characteristic combinations of symptoms as constituting true mental diseases; as these took more definite forms, it became a matter of great interest to study the variations from them, and to pursue new inquiries to discover their import. The course of the studies, which appear to distinguish the Heidelberg school, held closely to the plane of the thinking processes open to psychological experimentation, with less attention being given to the genesis of the emotional changes. Pathological anatomy was not at all neglected, but its remoteness as a present aid to the clinic was granted; on the other hand, there was no word of treatment, or of conceptions of underlying chemical processes in this phase of the inquiry. In fact, the three missions to Europe, in 1889, 1894, and 1897, which were charged to investigate any examples of methodical work in pathological chemistry joined to clinical psychiatry, brought home no report of interest in it. But in 1899 the original purpose of our chemical laboratory began to be pressed in order that attention should be given through it to the ultimate aim of the clinical investigations, — the therapeutics of mental disease. A little later, in 1901, the unifying influence of the investigations in pathological chemistry brought all the laboratories together into intimate working relations with the clinic and its problems of treatment. This does not mean that there had been any undue delay in arriving at this stage in the new procedure; some degree of perfection in each stage was the requirement before attempting advancement. The whole procedure had its own originality, was entitled to be worked out in its own way, and the high quality of its results will duly appear; its plan and special purpose were set forth in a paper, " On the Clinical

Study of Psychiatry," by Dr. Hoch, in 1900. The practical result of the work done, with the singleness of purpose that is indicated by this recital, is an accumulation of recorded data of rare completeness and precision in the observation and description of facts, including a sufficient number of cases to give a definite value to their collective study. The work thus enters upon a new stage; not until now has it seemed advisable to draw conclusions for publication as "results." For this purpose there will be a careful revision of the diagnoses of cases, a study of the relations of different groups for proper classification. The general result of the procedure that has occupied the last seven years is a gratifying justification of the work that went before. The former work has been open to the criticism of being too speculative; the latter has been regarded as too conservative and as not having accomplished much. The former had to proceed to early "conclusions" in order that means for more perfect work could be prepared; but the "conclusions" have borne the test of a practical review so far as the latter has gone. The latter owes its value to its rigid conservatism.

It has happened to be the office of the writer of this history to foresee the opportunity, to forecast the means, and to be the promoter and coordinator of these labors in the service of the Hospital. If, with respect to the present situation, further prevision were to be expressed, it would be to say that there are signs already of coming interest here in the problems of the pleasure-pain sensations, involving as they do the study of the conditions concerned in the genesis of disordered emotional states; then must be included the pathology of the organic states that play their part in the variations of excitation or



CHEMICAL LABORATORY AND LIBRARY.

depression of the inherent irritability and kinetic energy of nerve centers. It is of great importance for the psychiatrist to enter upon these studies in which the psychologist and physiologist are doing so much. A coordinator of satisfactorily organized efforts to pursue such investigations may watch with interest and without concern the progress in the path of an earlier forecast, which sought from the beginning to find the way to better methods of treatment.

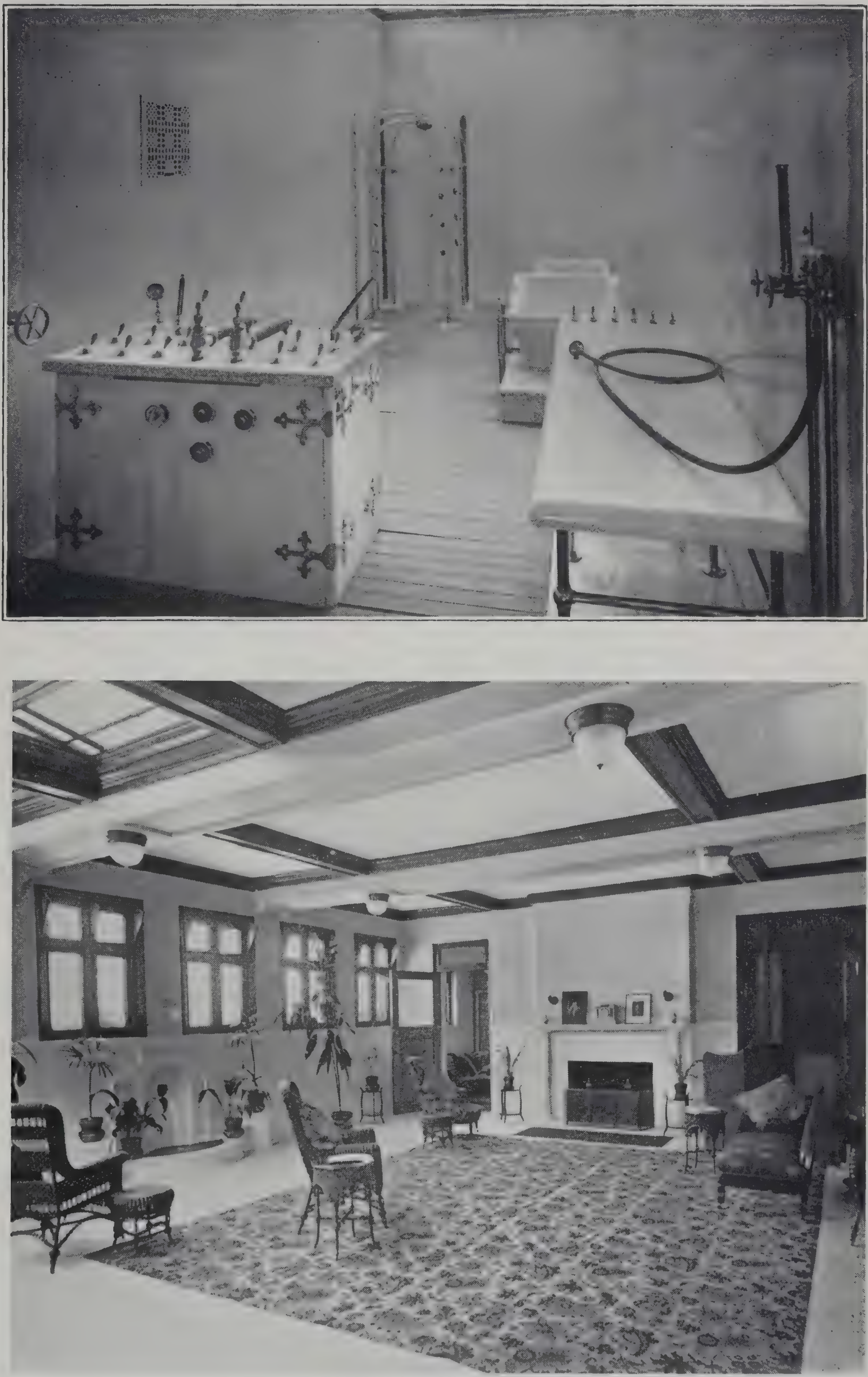
In 1899 we were again under obligation to Professor Chittenden, upon whose recommendation Dr. Otto Folin was invited to visit the laboratories. In the latter part of the year 1900 the Trustees authorized a four years' trial in the further development of the work in pathological chemistry as an adjunct to the clinical department for therapeutic purposes; then at last was realized the complete fulfilment of the general plan conceived in 1888-89. Dr. Folin's preparation for this work was made in part at the University of Chicago under Professors Nef and Stieglitz; after taking there the degree of Ph. D. he spent two years as a student of physiological chemistry at Upsala, Berlin, and Marburg as a pupil of Hammarsten, Salkowski, and Kossel. His subsequent studies were directed to pathological chemistry, including a year in charge of the teaching of physiological and analytical chemistry at the University of West Virginia.

The condition of the Hospital in the last year, 1901, will best indicate the results of the work that has been done here in the twenty-two years covered by this account. Referring to the reports from the several departments, that of Dr. Tuttle includes the following statements concerning the clinical work.

Most of the acute and recoverable cases admitted are in a state of more or less exhaustion from lack of food and sleep; the best results from treatment are obtained by the use of measures directed to improvement of the bodily condition. In a description of the methods employed with respect to extra feeding and the use of tonic medicines, it is stated that hypnotics have been given rarely, and as a rule only in occasional doses; it has been found much more satisfactory to depend on full feeding, baths, massage, and exercise in the open air instead of drugs to procure sleep. A modified form of the rest-treatment is used, and massage with passive and resistive movements followed, at a later stage, by more active exercise in the gymnasium and out-of-doors. These have been the standard methods practised for years.

During the year hydrotherapy has been used freely and with improvement in method. It has become the practise to begin with cold ablutions before rising; the patient, gradually becoming accustomed to reduced temperatures by this and other means, such as drip sheets and cold packs, is able to take a full needle bath or douche sufficient in pressure and duration. The more this method of treatment is employed here the more evident it becomes that in the use of water at various temperatures, with varying duration, delivered under greater or less pressure, we have a means of producing the most marked effects.

In the investigations of the physiological and therapeutic effects of hydrotherapy, the value of the laboratory departments to the current clinical work is becoming more apparent. The tonic influences of the baths in conditions of nervous exhaustion, their effects on blood pressure, circulation, nutrition, fa-



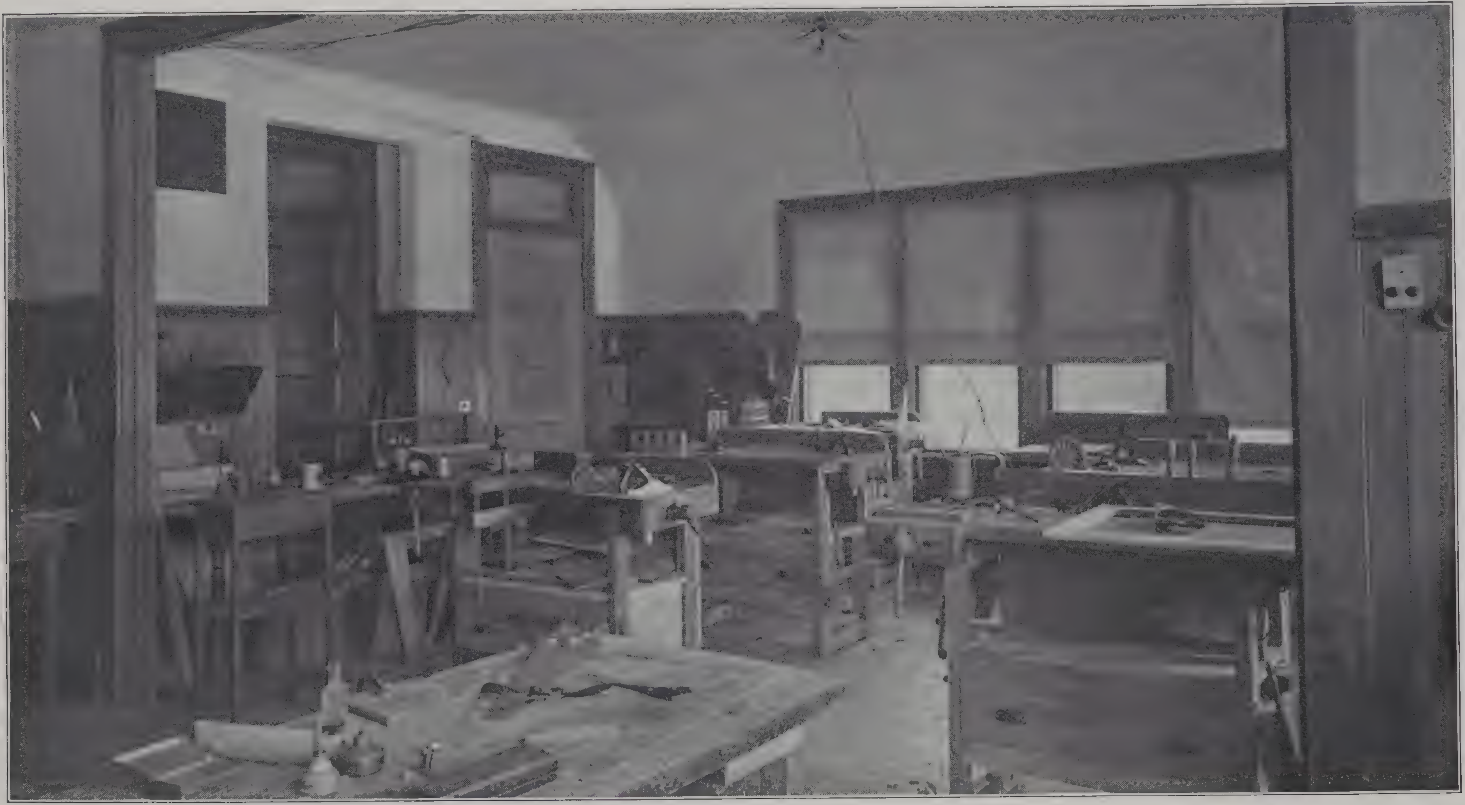
BATHS IN GYMNASIUM.

RESTING ROOM AND DOUCHE ROOM.

tigue, are all being studied by exact laboratory methods. The object of this work is to determine with the necessary degree of accuracy what can and what cannot be expected from the various forms of hydrotherapy, and thus to be able to make prescriptions of such treatment with a greater degree of precision. Considerable progress has already been made in this work. The clinical service continues to utilize the assistance of the chemical department not only for the routine chemical tests, and for special investigations in urinary analysis, but also for systematic laboratory studies of conditions affecting the power of digesting and absorbing food. A good beginning has also been made in the psychiatrical and chemical laboratories for a joint study of the whole group of alternating insanities.

As in all hospitals of this kind a large place is given to diversion and occupation, which are of great value in turning the patients' attention from distressing thoughts. Most of them are unaccustomed to manual labor, and a game that interests, and requires a moderate amount of exercise, is the best for our purposes. Golf has been a great resource for both sexes. Games out-of-doors in summer and fall, and skating on the neighboring ponds in winter, have afforded beneficial diversion; in fall and winter there are also classes in drawing and painting for women, and in wood-working for men. Large use is made of excursions in the electric cars; and concerts, theaters, and art exhibitions in Boston are freely patronized; every Tuesday evening in winter is devoted to concerts, lectures, dramatic entertainments or dancing parties in our entertainment hall. Many patients have parole of the attractive grounds of the Hospital, or the privilege of a wider range. By these and other means it is the constant endeavor to minimize the custodial element in the care of the patients, and to make prominent the hospital idea, which implies that they are here because of sickness and for treatment. The work of this department is represented this year by the annual address before the District Medical Society on "Hallucinations," by Dr. Tuttle; also by his contributions on "Myxœdematous Insanity" and "Cretinism" for the *Reference Handbook of Medical Sciences.*

In the report by Dr. Hoch upon the work of the pathological and psychological laboratories, and including the special investigations in the clinical work, the following statements are presented. Pathological anatomy is unquestionably a most important branch of our study, to which much energy should be devoted, and from which valuable results will surely follow. But in our present state of knowledge the bulk of data which offer themselves for study are not in the field of pathology which deals with structural changes; they are in that field which deals with abnormal functions, that is, the clinical manifestations. Therefore, starting out with the intention of making a study of mental diseases, it was regarded as necessary first to make careful clinical studies, to furnish a broad foundation upon which all other work might be built. This has been for years the plan of this Hospital; and much stress has been laid upon a careful study and analysis of each case. The material collected has become sufficiently large for collective analysis and elaboration; in the past year some of the results of this work were laid down in the two articles by Dr. Tuttle (already mentioned), and in three others by Dr. Hoch, on "Mania," "Manic-depres-



MEN'S GYMNASIUM. PATIENTS' WORKSHOP.

sive Insanity," and "Melancholia," for the *Reference Handbook of Medical Sciences.*

In the pathological laboratory, by an improved arrangement, the time of one junior assistant is devoted exclusively to the laboratory work. This has been more productive than heretofore; besides the usual work a number of important cases of grosser brain lesions are being carefully worked out for future publication. Some studies on certain blood changes which have been found in some cases of melancholia were continued during the year, and require further investigation.

In the psychological laboratory studies were continued which had been begun some years before, but which had been interrupted. The clinical studies have furnished a problem which seemed to promise a solution by psychological experiment. A method was devised by which voluntary motor activity could be studied more minutely, promising interesting results; a preliminary account was published in the paper by Dr. Hoch, "On Certain Studies with the Ergograph." This work will be continued.

In the report upon the chemical laboratory Dr. Folin refers to the remodeling of it, which was not quite complete at the beginning of the year, and to the gradual acquisition of apparatus and chemicals. The equipment may now be said to be almost all that could be desired. By reason of the great advancements that are being made in this department of science, the current periodicals must be depended upon for important contributions to its literature. This laboratory has its library well supplied with the more important journals which have any bearing upon its work; it has also three complete sets of the most important publications required for reference;

some others are still needed. The work actually accomplished was somewhat preliminary in character as was to have been expected under the circumstances; moreover, this particular field of physiological chemistry is practically new as far as exact chemical investigations are concerned. The character of the initial work is indicated by three papers by Dr. Folin, the titles of which are to be found in the appended list of papers; they relate to descriptions of new chemical methods. The most important work of the year was a fairly exhaustive investigation of the question whether the toxic or non-toxic character of urine in the insane can serve as an index to the production of toxic substances in certain forms of insanity. This question has been repeatedly answered in the affirmative by different European investigators, but, as it appears, without satisfactory proof. The conclusions to be drawn from the experiments of Dr. Folin and his assistant, Mr. Shaffer, indicate quite decidedly that the urines of the insane do not exhibit any such characteristic toxic properties. This work is yet to be published. In the latter part of the year a clinical problem was presented by a case having daily alternations of depression and excitement in which a series of metabolism experiments were begun which have given so far promising results; this study is being extended to the general investigation of this important group of alternating cases, as indicated in the statement regarding the clinical work.

The list of papers appended to this report, to some of which references have been made, indicates an increasing activity of production during the last ten years. Although their subjects appear to be somewhat miscellaneous in character, each relates to some phase of the work in which the Hospital was concerned. It has been our purpose not to publish "results," except a few preliminary communications, until fairly matured conclusions can be presented.

The foregoing account, as a record of events in the history of this Hospital for twenty-two years, is also descriptive of an effort to perfect its work, and enlarge its benefits to those who suffer from the afflictions of mental infirmity. Such a Hospital has a certain special obligation because of the opportunity it enjoys, in its independent corporate capacity, of doing that which is good in the broadest view of things, free from the obstacles that commonly hamper the work of public institutions subject to limitations of support and to political and other repressive influences. So little is generally known of the true position of this Hospital that it seems proper — besides having entered into much detail regarding its more recent history — to explain some particulars. It is an equal institution with the General Hospital in Boston, under the control of the Corporation and Trustees of the Massachusetts General Hospital. It was opened for patients Oct. 6, 1818, while the General Hospital was not opened until Sept. 3, 1821. The McLean Hospital is managed independently of the other Hospital. During its history of seventy-eight years as the old Asylum at Somerville, the appreciation of its property in value over the original modest investment amounted to enough to pay for about three-fourths of the new Hospital. The remaining fourth represents benefactions for the purpose; therefore, in its material existence, the institution must be credited with being largely self-created under the wise administration of its governing authorities, even while it was bestowing an immense amount of charitable benefit. The builders of the new houses at Waverley believed it wise to go beyond the requirements of the present time, and consider the probable standards of the future. Thus in its aims to attain a high degree of excellence, the institution does not represent a large draft upon public philanthropy. Not only this, but it has been practically self-supporting; it is a fact that is very little understood, that there can be so great an amount given in charity at so small a cost of giving. It is easy to explain this seeming paradox of an institution for charity that may be self-sustaining after the plant is once created. On the material side the Hospital is a device for the economical production of a large amount of benefit. At a regular charge, representing the average cost, which would barely cover the wages of a trained nurse, the Hospital can afford conditions and means of treatment unattainable at the patient's home even at an expense many times larger. But the Hospital can furnish also, at the higher rates, accommodations and service of such a quality that they are sought in time of need by many who regard as satisfactory for the relief they gain the terms that only approximate their value. Thus, on a perfectly fair basis, that which is earned by the institution on the one hand helps to maintain its purpose on the other of giving beneficiary aid to many more persons in a more actively moving population by reductions of rates from one-fourth to three-fourths, or by gratuitous benefactions, in appropriate cases, all of whom receive alike the best medical care that can be given here.

The problem of self-support, to be clearly understood, makes important a more precise explanation than has been given. The general fund of the Corporation is held for the support of the General Hospital, besides its special beneficiary funds. But the McLean Hospital has been expected to support itself; if in any year there is a deficit, it is made up from the general funds, with repayment from the surplus of other years. The accounts prior to 1859 are difficult to analyze, but the balance was not large either way until 1883, when extra expenditures in reconstruction had made the account practically about even as to actual running expenses. At the end of the year 1894 the McLean Hospital had a credit of $70,000 in its account with the Treasurer. This nearly covered the extraordinary expenses of the removal to Waverley, and the first years following 1895, so that at the beginning of 1898 there was a balance of only $5,000 as the cost of this institution to the general fund, since 1858, at least. While a great amount of beneficiary aid is given every year, it is another notable fact that the income from our special funds for that purpose, having been only $9,000 in 1880, and $11,000 in 1890, now amounts to only $16,000 annually. It may be seen what these funds are by referring to the reports of the Trustees and Treasurer. This income being added to the receipts for board of patients is expected to pay all expenses. The aggregate of these was increased at once about one-third upon the removal to Waverley. There has been a further increase year by year along with the development of the means for treatment as was projected in the plans for the new Hospital. But the earnings, beginning with a small increase, have grown still more rapidly, so that there has been a pronounced tendency to the annual reduction of the deficits, along with the perfecting of the plant. An exception to this occurred in the year just ended. While the Treasurer's disbursements show an apparent diminution from those of the year 1900, the Hospital charged itself with the consumption of a considerable amount of stock on hand, chiefly fuel, at the beginning of the year. The account being adjusted as to this and other items, there was an apparent increase in the expenses of administration to the amount of about $16,000. But this was made up of three items: about $3,000 in falling off of earnings due to a very exceptional number of the higher rates being extinguished by the death of patients long resident here, though the larger part of the amount was made up within the year by increase of admissions; about $2,600 of accumulated beneficiary income that enlarged exceptionally the credit of the previous year; and the item of actual increase of outgo in running expenses, amounting to about $10,500. The last item, however, was an extraordinary one; it included some new construction for boiler-house and gas-plant, new equipment for laboratories, and certain items of "repairs" of buildings for the thorough improvement of original construction, directed by the architect of the Hospital. It should be noted that in so large an establishment, twenty-five buildings in all, which were occupied before being fully completed, and some of the minor ones being later additions, there were many matters requiring completion, the correction of imperfections, and improvements for economy of service. This heavy handicap of the first years is being gradually reduced.

A careful analysis of the accounts shows further that we are approaching a more stable condition in matters relating to disbursements; at the same time the tendency to increase of income is growing stronger, but is now reaching its limits because of lack of accommodations for the business that is being offered. Thus our history is repeating itself, — with a difference. In 1880 the two principles set up were: self-support and advancement in the scientific treatment of mental disease. The obvious policy was to earn money to spend for the improvement of the medical service. But there was first an investment to perfect the service in order to attract patronage. The returns were quick and there was no hesitation in making larger improvements of the service because they brought a more than supporting income. This was the satisfactory result of the first fifteen years. Now, in 1902, at the end of seven years of another period, we are in the midst of working out the same process under far more favorable circumstances. The investment has been made; the long desired organization for the medical work has been recently perfected; an ample and growing patronage has been created, as is shown by the remarkable rapidity of movement of the population, and by the increasing number of applications for admission that have to be declined; but here comes in the difference from the former time. It is the lack of room for doing the work; that being afforded would make the Hospital again self-supporting.

The circumstances that have been described show that the normal deficit under present conditions is settling down to be about $10,000 to $15,000 annually. This is easily accounted for: the capacity of the Hospital is fifteen beds less than at Somerville; the income from the "occupation" and "amusement" funds provides for only a small part of these requirements for treatment that are found to be so beneficial under present methods; the very helpful aid of the gymnasium and baths are proving to be indispensable for their remedial uses. If nothing were to be said of the very obvious material reasons for greater cost at Waverley under the modern requirements of such a Hospital, nor of the amount and refinements of the service that can produce such curative influences, there is still the other large item in which we take the highest professional pride: this refers to the laboratories and the kindred work. These special provisions for the improvement of the treatment, as compared with the conditions in the ten years from 1880 to 1890, add not less than $6,000 per year to the running expenses. With all the business departments conducted in the same manner as they formerly were, the "refinements" above enumerated constitute a sufficient cause for the annual deficit. Except for the efforts to do a higher order of professional and remedial work, the Hospital would be to-day self-supporting. It should be noted, in this regard, that this Hospital is now in debt to the general fund only for an amount very nearly the same as the credit gained in the twelve years preceding the removal to Waverley.

At this point, in this recital, the data of our practical problem are fairly well brought together. If the Hospital is to be held to account for self-support, as in former times, it is evident that it is expected to accomplish this with less earning capacity and with larger requirements in the service it gives. An obvious remedy is to provide another house for women to meet the strenuous and increasing demand for accommodations, to relieve the embarrassment of the work in certain crowded wards, and to enlarge in a normal way the amount of benefit that it is the largest purpose of the Hospital to give. Such a house would pay for itself in a few years. If, however, the relief of additional capacity is impracticable at the present time, then the administration must continue its labors with the sense of being between an upper and nether millstone. On the one side is the annual distress of a deficit that tends to annul in part the forces which might be turned to the production of higher accomplishment in bringing to fruition the "movement" that by years of effort is now coming to the stage of efficiency. On the other side the pressure continues in the great and reproachful demand that hospitals like this shall do something for the advancement of the treatment of insanity. Our progress thus far has been generously encouraged from the beginning by the governing authorities. In respect to the chemical department, for example, which represents a culminating effort in the greater plan, a grant has been made for a trial of four years in its support. Two of the years will have passed with the approaching mid-year. Next year practically will go far towards deciding whether we can plan to go on or not with that particular work. Shall all the laboratory work be cut off as not being obviously productive, though it furnishes legitimate means for improving the methods of treatment, and though the products of scientific research do not come by years? This, as a professional question, can have but one answer: these things, constituting the working tools of our clinical-pathological laboratory, bear also the same relation to our clinical work that the costly surgical equipments do to a modern general hospital.

It must be seen that this "movement" here has reached a fulness of growth that demonstrates its just claims. In the lines of great scientific and philanthropic endeavor, and in the generous encouragement of it at the present time, there should be no neglect of such a cause as lies in the prevention and cure of insanity. It has come to be seen that medical research in laboratories and clinics, in connection with teaching institutions, is a proper object for endowment. But there is no endowment in any hospital, in this country at least, for practical research in problems that can be most hopefully studied in the living patient with the means of investigation immediately at hand, as in the work which this Hospital is doing. The McLean Hospital, as an institution under the control of the Corporation of the Massachusetts General Hospital, is competent to have charge of such a fund.

This account of one of the important periods in the history of the Hospital is respectfully presented to the trustees. It has been written with two chief purposes in view: —

1. To put on record what has been done in the time covered by this recital, and to show what it is hoped may be done.

2. To present the grounds of an appeal for two things: a house for women patients, and a special fund for promoting the scientific study of the causes, prevention, and treatment of insanity.

Very respectfully,

EDWARD COWLES,

Medical Superintendent.

LIST OF PAPERS PUBLISHED BY THE MEDICAL STAFF OF THE McLEAN HOSPITAL SINCE 1880.

1882. 1. A Case of General Paralysis. *Boston Medical and Surgical Journal.* Tuttle, G. T.

1885. 2. Construction and Organization of Hospitals. *International Encyclopædic Surgery*, Vol. VI. Cowles, E.

1886. 3. Construction and Management of Hospitals. *Reference Handbook of Medical Sciences*, Vol. III. Cowles, E.

4. Hospitalism. *Ibid.* Cowles, E.

5. An Account of the McLean Asylum Training School for Nurses. *American Journal of Insanity.* Tuttle, G. T.

1887. 6. Nursing Reform for the Insane. *American Journal of Insanity.* Cowles, E.

1888. 7. Insistent and Fixed Ideas. *American Journal of Psychology.* Cowles, E.

1890. 8. Training Schools of the Future. *Report of the National Conference of Charities and Correction.* Cowles, E.

9. Training Schools for Nurses; their Value and Scope: *Proceedings of Association of Medical Superintendents. American Journal of Insanity.* Cowles, E.

10. The Mechanism of Insanity: The Normal Mechanism of Mind and Body; The Normal Mechanism in Use; Pathological Fatigue or Neurasthenia. *American Journal of Insanity.* Cowles, E.

1891. 11. Neurasthenia and its Mental Symptoms: Shattuck Lecture. *Boston Medical and Surgical Journal.* Cowles, E.

12. Two Days at Gheel. *Annual Report of Massachusetts State Board of Lunacy and Charity.* Tuttle, G. T.

1892. 13. The Seminary Method in Asylum and Hospital Work. *American Journal of Insanity.* Cowles, E.

1892. 14. Nursing, or Training Schools for Nurses. *Dictionary of Psychological Medicine*, Vol. II. Cowles, E.

15. On Certain Peculiarities of the Knee-Jerk in Sleep, in a Case of Terminal Dementia. *American Journal of Psychology.* Noyes, W.

16. Kidney Disease and Insanity. *American Journal of Insanity.* Tuttle, G. T.

1893. 17. Construction and Management of Hospitals. *Reference Handbook of Medical Sciences*, Vol. IX. Cowles, E.

18. Mental Symptoms of Fatigue. *Transactions of the New York State Medical Association.* Cowles, E.

19. Relations of the Medical Staff and the Governing Bodies in Hospitals: *Hospitals, Dispensaries, and Nursing;* papers in the *Report of the International Congress of Charities and Correction, Chicago.* Cowles, E.

20. Report upon the Occupation of Patients. *Annual Report, Massachusetts General Hospital and McLean Hospital.* Cowles, E.

1894. 21. Progress in the Care and Treatment of the Insane during the Half-century. *American Journal of Insanity.* Cowles, E.

1895. 22. Immunity and Cure. *Boston Medical and Surgical Journal.* Abbot, E. S.

23. Advancement of Psychiatry in America — Presidential Address, American Medico-Psychological Association, Denver. *American Journal of Insanity.* Cowles, E.

24. Uber die Wirkung der Theebestandtheile auf Körperliche und Geistige Arbeit. *Psychologische Arbeiten.* Hoch, A.

1896. 25. A Study of the Blood in General Paralysis. *American Journal of Medical Sciences.* Capps, J. A.

26. Study of Urea and Uric Acid in Melancholia and in a Case Presenting Recurrent Periods of Confusion and Depression. *American Journal of Insanity, 1898.* Hibbard, C. M.

1896. 27. Kraepelin on Psychological Experimentation in Psychiatry. *American Journal of Insanity.* Hoch, A.

1897. 28. Relation of Mental Disease to General Medicine: Maine Medical Association. *Boston Medical and Surgical Journal.* Cowles, E.

29. General Paralysis in Two Sisters, Commencing at the Age of Ten and Fifteen Respectively — Autopsy in One. *Journal of Nervous and Mental Disease.* Hoch, A.

1898. 30. Advanced Professional Work in Hospitals for the Insane: Address before the National Conference of Charities and Correction, New York. *American Journal of Insanity.* Cowles, E.

31. On Changes in the Nerve Cells of the Cortex in a Case of Acute Delirium Tremens. *American Journal of Insanity.* Hoch, A.

32. Nerve-Cell Changes in Somatic Diseases; a Preliminary Communication. *American Journal of Insanity.* Hoch, A.

1899. 33. Study of Leucocytosis Associated with Convulsions. *American Journal of Medical Sciences.* Burrows, F. G.

34. Epilepsy with Retrograde Amnesia: a Medico-Legal Study. *American Journal of Insanity.* Cowles, E.

35. Progress in the Clinical Study of Psychiatry. *American Journal of Insanity.* Cowles, E.

1900. 36. On the Clinical Study of Psychiatry. *American Journal of Insanity.* Hoch, A.

1901. 37. Ein Einfaches Verfahren zur Bestimmung des Ammoniaks im Harne. *Hoppe-Seyler's Zeitschrift.* Folin, O.

38. Eine Neue Methode zur Bestimmung des Harnstoffs im Harne. *Hoppe-Seyler's Zeitschrift.* Folin, O.

39. Ueber die Quantitative Bestimmung der Harnsaure im Harn. *Hoppe-Seyler's Zeitschrift.* Folin, O., and Schaffer, P. A.

40. On Certain Studies with the Ergograph. *Journal of Nervous and Mental Disease.* Hoch, A.

41. Hallucinations and Illusions: Annual Address before the Middlesex South District Medical Society. *American Journal of Insanity.* Tuttle, G. T.

PAPERS FOR PUBLICATION.

1902. 1. Papers read at the Meeting of the Middlesex South District Medical Society, October, 1901:
  The Medical Work of Twenty-two Years at the McLean Hospital. Cowles, E.
  The Clinical Work of the McLean Hospital. Tuttle, G. T.
  The Pathological and Psychological Laboratories. Hoch, A.
  The Chemical Laboratory. Folin, O.

2. The Treatment of Paresis — its Limitations and Expectations. *New York State Medical Society.* Cowles, E.

3. Myxœdematous Insanity. *Reference Handbook of Medical Sciences.* Tuttle, G. T.

4. Cretinism. *Ibid.* Tuttle, G. T.

5. Mania. *Ibid.* Hoch, A.

6. Manic-Depressive Insanity. *Ibid.* Hoch, A.

7. Melancholia. *Ibid.* Hoch, A.

8. On the Quantitative Determination of Total Sulphates in Urine. *American Journal of Physiology.* Folin, O.

9. On Phosphate Metabolism. *American Journal of Physiology.* Folin, O., and Shaffer, P. A.

10. The Organic Sensations in Mental Pathology. Cowles, E.

ARTICLES DESCRIPTIVE OF McLEAN HOSPITAL AND ITS WORK.

1895. 1. Description of the McLean Hospital Laboratory: "Les Laboratoires de Psychologie en Amerique." *L'Année Psychologique.* Delabarre, E. B.

2. Laboratory of the McLean Hospital, Somerville, Mass. *American Journal of Insanity.* Hall, G. S.

1896. 3. The New McLean Hospital. *American Journal of Insanity.* Hurd, H. M.

STATISTICAL TABLES

Relating to the patients treated in the Hospital during the year 1901 : —

TABLE No. 1.

GENERAL STATISTICS OF THE YEAR.

	Males.	Females.	Total.
Patients in the Hospital Jan. 1, 1901 . . .	82	91	173
Admissions within the year	80	77	157
Whole number of *cases* within the year . .	162	168	330
Discharged within the year	81	73	154
Namely — as Recovered	22	23	45
Much improved	7	12	19
Improved	14	17	31
Unimproved	15	13	28
Not insane	3	1	4
Deaths	20	7	27
Patients remaining Dec. 31, 1901, supported as private patients	81	95	176
Number of different *persons* within the year .	156	163	319
" " " " admitted . . .	77	75	152
" " " " recovered . . .	21	22	43
Daily average number of patients	78.62	87.70	166.32

During the year 3 men and 2 women were twice admitted, and 3 men and 3 women were discharged and re-admitted. Thus the 330 cases treated represented 319 persons.

Of the 152 persons admitted during the year, 95 were regarded as recent cases, and 57 as chronic, or incurable.

There were 108 persons, 59 men and 49 women, who had never been in any hospital. Of the remaining 49 persons, 32, 11 men and 21 women, were admitted for the second time; 5, 4 men and 1 woman, for the third time; 6, 4 men and 2 women, for the fourth time; 2, 1 man and 1 woman for the fifth time; 2 women for the sixth time; 1 man for the seventh time; 1 woman for the eighth time, 1 man for the ninth time; 1 woman for the fourteenth time, and 1 man for the fifteenth time.

In 1901 there were 12 less admissions, 1 less discharge, and 2 more cases under treatment than during the year 1900, and the number present was 3 more at the end than at the beginning of the year.

Of the 151 persons discharged, including deaths, 22, 11 men and 11 women, were transferred or committed to other hospitals in this State; and 1 man to a hospital in another State.

Of the 43 persons discharged recovered, 25 had never before been inmates of any hospital; and the remaining 18 persons had been in this and other hospitals. These 18 persons had previously made 58 recoveries.

The average duration of illness from the beginning of attack in 45 cases recovered was 12 months, and the average duration of their residence in the hospital was 7.5 months.

The percentage of recoveries on all admissions for the year 1901 was 28.66; these admissions include 2 cases "not insane."

The voluntary cases admitted during the year numbered 61, 27 men and 34 women. Of these 34 were cases of depressive-maniacal insanity, 3 of dementia præcox, 4 of general paralysis, 4 of involution psychosis, 3 of senile dementia, 1 of neurasthenia, 1 of primary delusional insanity, 1 of alcoholism, and 1 each of hypochondriasis, fixed ideas and paranoiac condition. One was not insane, and in 4 cases no diagnosis was made.

The 61 voluntary cases admitted during the year with 53 such cases remaining from previous years furnished 25 recoveries. The voluntary patients have yielded 21.91 per cent. of recoveries on the admissions of that class for 1901, thus furnishing less than their due proportion of all the recoveries. Of this class, 6 other cases were discharged much improved, 13 improved, 16 not improved, 4 not insane, 3 dead, and 3 were committed. The total remaining under the voluntary relation at the end of the year is 48 persons, 20 men and 28 women.

The number of cases admitted as voluntary patients under the present law is as follows: namely, 1881, 1; 1882, 11; 1883, 33; 1884, 49; 1885, 34; 1886, 29; 1887, 29; 1888, 34; 1889, 41; 1890, 58; 1891, 40; 1892, 52; 1893, 46; 1894, 40; 1895, 39; 1896, 48; 1897, 61; 1898, 61; 1899, 60; 1900, 84; 1901, 61; — a total of 911 cases in 21 years.

The voluntary cases were three-eighths of all admissions. Three of these were regularly committed after admission to the Hospital — 1 because the case was not a proper one to remain on the voluntary basis, and 2 because of their demand for discharge.

TABLE No. 2.

TABLE OF ADMISSIONS, DISCHARGES, AND RESULTS FOR TEN YEARS.

Years.	Admitted.	Discharged.	Whole No. under Care.	Died.	Much improved, etc.	Recovered.	Remaining at End of Year.	Average No. of Patients.
1892	150	160	328	23	102	35	168	174
1893	109	102	227	13	66	23	175	177
1894	116	129	291	17	42	40	162	175
1895	108	135	270	13	45	28	135	144
1896	127	112	262	16	36	24	150	138
1897	137	120	287	13	46	42	167	143
1898	132	143	299	16	54	27	156	154
1899	135	132	291	11	51	37	159	157
1900	169	155	328	23	58	37	173	164
1901	157	154	330	27	19	45	176	166

Total number of admissions from the year 1818,—8,889.

TABLE No. 3.

MONTHLY ADMISSIONS, DISCHARGES, AND AVERAGES.

Months.	Admissions.			Discharges (including Deaths).			Daily Average of Patients in the House.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
January . .	7	6	13	6	3	9	79.58	87.19	166.77
February .	3	5	8	4	5	9	78.71	89.11	167.82
March . .	9	5	14	5	2	7	81.39	90.68	172.06
April . . .	6	5	11	6	4	10	80.27	91.13	171.40
May . . .	9	4	13	5	3	8	79.68	87.26	166.94
June . . .	9	7	16	5	6	11	82.40	86.70	169.10
July . . .	5	7	12	17	9	26	78.19	87.87	166.06
August . .	9	7	16	4	10	14	79.29	85.10	164.39
September .	5	7	12	6	10	16	77.30	84.60	161.90
October . .	4	12	16	8	5	13	74.45	84.22	158.67
November .	5	9	14	7	9	16	73.87	89.30	163.17
December .	9	3	12	8	7	15	78.32	89.42	167.74
Total *cases*.	80	77	157	81	73	154	78.62	87.70	166.32
Total *persons*	77	75	152	79	72	151			

TABLE No. 4.

RECEIVED ON FIRST AND SUBSEQUENT ADMISSIONS.

Number of the Admission.	Cases Admitted.			Times Previously Recovered.		
	Males.	Females.	Total.	Males.	Females.	Total.
First	59	49	108	8	7	15
Second	11	21	32	8	2	10
Third	5	1	6	9	. .	9
Fourth	4	2	6	. .	. .	. .
Fifth	. .	1	1	. .	5	5
Sixth	. .	2	2	. .	. .	. .
Seventh	1	. .	1	. .	. .	. .
Eighth	. .	. .	. .	. .	8	8
Ninth	. .	1	1	9	. .	9
Fourteenth . .	. .	. .	. .	. .	14	14
Total of *cases* . .	80	77	157	34	36	70
Total of *persons* .	77	75	152	. .	. .	. .

These 70 recoveries represent 27 persons, 15 having recovered one, 5 two, 3 three, 1 five, 1 eight, 1 nine, and 1 fourteen, times.

TABLE No. 5.

RELATION TO HOSPITALS OF THE PERSONS ADMITTED.

	Males.	Females.	Total.
Never before in any hospital	59	49	108
Former inmates of this Hospital	5	10	15
Former inmates of other hospitals	10	13	23
Former inmates of this and other hospitals .	6	5	11
Total of *persons*	80	77	157

TABLE No. 6.

PARENTAGE OF PERSONS ADMITTED.

Place of Nativity.	Males.		Females.		Total.	
	Father	Mother.	Father.	Mother.	Father.	Mother.
Maine	9	9	7	7	16	16
New Hampshire .	5	5	6	5	11	10
Vermont . . .	2	1	2	3	4	4
Massachusetts .	31	30	31	33	62	63
Rhode Island . .	2	1	1	1	3	2
Connecticut . .	1	2	3	2	4	4
New York . . .	3	2	3	3	6	5
New Jersey . .	. .	1	2	1	2	2
Pennsylvania . .	. .	2	. .	. .	. .	2
Michigan . . .	. .	. .	. .	1	. .	1
Indiana	. .	. .	1	1	1	1
Louisiana . . .	1	. .	. .	. .	1	. .
England . . .	3	3	3	4	6	7
Ireland	13	15	7	7	20	22
Scotland . . .	1	1	2	1	3	2
Canada	1	. .	1	1	2	1
Nova Scotia . .	. .	. .	2	1	2	1
P. E. Island . .	1	1	. .	. .	1	1
New Brunswick .	3	3	1	2	4	5
Germany . . .	1	1	3	2	4	3
Total of *persons* .	77	77	75	75	152	152

TABLE No. 7.

RESIDENCE OF PERSONS ADMITTED.

Places.	Males.	Females.	Total.
Massachusetts: —			
Suffolk County	21	18	39
Middlesex County	28	23	51
Essex County	6	4	10
Norfolk County	7	8	15
Bristol County	1	. .	1
Plymouth County	3	4	7
Worcester County	3	4	7
Berkshire County	. .	1	1
Franklin County	2	2	4
Maine	2	3	5
New Hampshire	. .	4	4
Connecticut	1	. .	1
New York	1	. .	1
New Jersey	. .	1	1
Illinois	. .	1	1
Pennsylvania	. .	1	1
Washington, D. C.	1	. .	1
New Brunswick	1	1	2
Total of *persons*	77	75	152

TABLE No 8.

CIVIL CONDITION OF PERSONS ADMITTED.

Number of the Admission.	Unmarried.			Married.			Widowed.			Total.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
First	26	19	45	28	22	50	5	8	13	59	49	108
Second	4	9	13	7	7	14	. .	5	5	11	21	32
Third	2	. .	2	2	1	3	1	. .	1	5	1	6
Fourth	3	1	4	1	1	2	. .	. .	. .	4	2	6
Fifth	. .	1	1	. .	. .	. .	. .	. .	. .	. .	1	1
Sixth	. .	1	1	. .	. .	. .	. .	1	1	. .	2	2
Seventh	. .	. .	. .	1	. .	1	. .	. .	. .	1	. .	1
Eighth	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Ninth	. .	. .	. .	. .	. .	. .	. .	1	1	. .	1	1
Total *cases*	35	31	66	39	31	70	6	15	21	80	77	157
Total *persons*	33	31	64	38	29	67	6	15	21	77	75	152

TABLE No. 9.
OCCUPATION OF PERSONS ADMITTED.

Occupations.	Males.	Females.	Total.
Artisan	3	..	3
Boarding House Keeper	..	3	3
Bookkeeper	1	2	3
Capitalist	2	..	2
Clergyman	2	..	2
Clerk	13	..	13
Compositor	1	..	1
Contractor	3	..	3
Dentist	1	..	1
Diplomat	1	..	1
Domestic affairs	..	39	39
Dressmaker	..	1	1
Engineer	2	..	2
Farmer	3	..	3
Inspector	1	..	1
Insurance Agent	1	..	1
Lawyer	3	..	3
Letter Carrier	1	..	1
Librarian	1	..	1
Manufacturer	2	..	2
Milliner	..	1	1
Naval officer	1	..	1
Operative	9	1	10
Physician	2	..	2
Plumber	3	..	3
Student	1	4	5
Teacher	..	11	11
Salesman	4	..	4
Tradesman	11	..	11
Treasurer	3	1	4
No occupation	2	12	14
Total of *persons*	77	75	152

TABLE No. 10.

PROBABLE CAUSES OF DISEASE IN PERSONS ADMITTED.

CAUSES.	Persons Admitted.						Committed.						Voluntary.					
	Committed.			Voluntary.			Previous Attacks.			Hereditary Predisposition.			Previous Attacks.			Hereditary Predisposition.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
1. — Physical : —																		
Arrested development	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Heredity	2	2	4	..	1	1	1	1	2	2	2	4	..	..	..	..	..	..
Ill health	7	3	10	..	1	1	..	..	..	2	2	4	..	..	..	..	1	1
Acute diseases	1	1	2	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1
Injury	..	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	1	1
Intemperance	2	1	3	1	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Menopause	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	11	1	12	1	..	1	1	..	1	2	..	2	..	..	..	1	..	1
Old age or senility	3	2	5	1	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Paralysis agitans	..	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
Puerperium	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
2. — Mental : —																		
Worry or anxiety	4	5	9	6	9	15	1	2	3	1	4	5	1	5	6	2	4	6
Grief	..	3	3	3	3	6	..	..	..	..	2	2	2	2	4	1	1	2
Over-study or over-work	8	6	14	10	4	14	4	..	4	2	1	3	4	1	5	2	2	4
3. — Unknown : —	14	17	31	2	10	12	3	7	10	2	7	9	1	7	8	1	4	5
Total	52	43	95	25	32	57	10	10	20	11	19	30	8	15	23	9	14	23

Three voluntary patients, one man and two women, were committed.

TABLE No. 11.

RECORD OF CASES ADMITTED WITHIN THE YEAR.

PATIENTS.	COMMITTED PATIENTS.			VOLUNTARY PATIENTS.			TOTAL.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Admitted	53	42	95	27	35	62	80	77	157
Discharged recovered	8	3	11	6	9	15	14	12	26
much improved	4	4	8	2	1	3	6	5	11
improved	6	2	8	3	2	5	9	4	13
not improved	4	3	7	3	4	7	7	7	14
not insane	1	..	1	1	..	1	2	..	2
Died	8	2	10	..	..	..	8	2	10
Remaining Dec. 31, 1901*	21	29	50	12	19	31	33	48	81
Number likely to recover or improve	17	15	32	10	17	27	27	32	59

* Three voluntary patients, one man and two women, were committed.

TABLE No. 12.

AGES OF INSANE AT FIRST ATTACK, ADMISSION, AND DEATH.

Ages.	Persons first admitted to any Hospital.						Persons Died.					
	At First Attack.			When Admitted.			At First Attack.			At Time of Death.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
15 years and less .	..	1	1	..	..	..	..	..	..	..	..	..
From 15 to 20 years	..	1	1	..	2	2	..	..	..	..	..	..
20 to 25 years	13	4	17	11	2	13	..	1	1	..	..	..
25 to 30 years	2	6	8	3	5	8	1	2	3	..	..	..
30 to 35 years	7	6	13	7	6	13	..	..	..	..	..	..
35 to 40 years	5	8	13	5	8	13	1	..	1	1	..	1
40 to 50 years	13	8	21	12	10	22	7	1	8	6	1	7
50 to 60 years	6	9	15	7	8	15	4	..	4	4	1	5
60 to 70 years	7	3	10	7	5	12	6	2	8	8	2	10
70 to 80 years	2	3	5	3	2	5	1	1	2	1	2	3
Over 80 years . . .	2	..	2	2	1	3	..	..	..	..	1	1
Total of *persons** .	59	49	108	59	49	108	20	7	27	20	7	27
	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.	Yrs.
Mean ages	42.62	40.76	41.98	43.52	44.03	43.75	53.22	46.78	51.55	56.12	65.71	58.61

*Two men were "not insane."

TABLE No. 13.

REPORTED DURATION OF INSANITY BEFORE LAST ADMISSION.

Previous Duration.	First Admission to any Hospital.			All other Admissions.			Total.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
Congenital . . .	..	..	..	..	..	..	..	..	..
Under 1 month .	13	14	27	5	7	12	18	21	39
From 1 to 3 mos. .	12	9	21	4	4	8	16	13	29
3 to 6 " .	10	8	18	2	5	7	12	13	25
6 to 12 " .	3	4	7	1	1	2	4	5	9
1 to 2 yrs. .	12	5	17	7	6	13	19	11	30
2 to 5 " .	7	3	10	1	1	2	8	4	12
5 to 10 " .	..	4	4	..	4	4	..	8	8
Over 10 yrs.	..	2	2	1	..	1	1	2	3
Total *cases** . .	57	49	106	21	28	49	78	77	155
Total *persons* . .	..	..	..	..	..	..	75	75	150
Average of known persons (in yrs.) . .	.79	2.01	1.35	1.47	1.67	1.60	1.01	1.95	1.49

*Two men were "not insane."

TABLE No. 14.

FORM OF MENTAL DISEASE IN CASES ADMITTED OR DISCHARGED, WITH CONDITION ON DISCHARGE.

FORM OF DISEASE.	Cases Admitted.			Cases Discharged.																	
				Recovered.			Much Improved.			Improved.			Not Improved.			Died.			Total.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
A.—Committed:—																					
Neurasthenia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Somatic disease insanity	4	..	4	..	..	..	1	..	1	1	..	1	..	..	..	..	..	..	2	..	2
Accident neurosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis agitans	..	1	1	..	..	..	..	..	..	..	..	.	..	..	..	..	1	1	..	1	1
Folie á deux	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Fixed ideas	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Depressive maniacal insanity	9	3	12	7	4	11	1	1	1	2	2	4	..	1	1	..	..	..	10	7	17
Confusional insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Involution psychosis	3	8	11	..	..	.	1	2	3	..	3	3	..	2	2	1	1	2	2	8	10
Dementia præcox	10	9	19	1	1	2	..	3	3	1	2	3	4	..	4	..	1	1	6	7	13
Katatonia	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paranoiac condition	2	1	3	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1
Primary delusional insanity	..	1	1	..	..	..	..	..	..	1	..	1	..	..	..	..	2	2	1	2	3
General paralysis	14	3	17	..	..	..	1	..	1	4	1	5	2	..	2	10	..	10	17	1	18
Senile dementia	5	3	8	..	..	..	1	1	2	..	..	..	1	..	1	5	1	6	7	2	9
Psychopathic inferiority	..	3	3	..	..	..	..	2	2	..	1	1	..	1	1	..	..	..	..	4	4
Alcoholism	2	..	2	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Alcoholic insanity	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Toxic insanity	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Cerebral thrombosis	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	1	2
Epilepsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Not insane	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No diagnosis	1	8	9	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2

TABLE No. 14.— *Concluded.*

FORM OF MENTAL DISEASE IN CASES ADMITTED OR DISCHARGED, WITH CONDITION ON DISCHARGE.

FORM OF DISEASE.	Cases Admitted.			Cases Discharged.																	
				Recovered.			Much Improved.			Improved.			Not Improved.			Died.			Total.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe	Tot.
B. — Voluntary: —																					
Neurasthenia	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Accident neurosis	2	..	2	..	..	.	..	..	..	..	..	..	1	..	1	..	..	..	1	..	1
Hysteria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hypochondriasis	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1
Fixed ideas	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Depressive maniacal insanity	13	21	34	9	13	22	2	2	4	..	5	5	..	4	4	..	..	..	11	24	35
Confusional insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Involution psychosis	2	2	4	..	..	..	..	..	..	..	1	1	2	..	2	1	..	1	3	1	4
Dementia præcox	..	3	3	..	1	1	..	..	..	1	1	2	1	2	3	..	..	..	2	4	6
Paranoic condition	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Primary delusional insanity	..	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
General paralysis	4	..	4	..	..	..	..	..	..	1	..	1	3	..	3	2	..	2	6	..	6
Senile dementia	2	1	3	..	..	..	..	..	..	2	..	2	1	1	2	..	..	..	3	1	4
Psychopathic inferiority	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism	1	..	1	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	2	..	2
Toxic insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epilepsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Not insane	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
No diagnosis	1	3	4	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1
Total number of *cases*	80	77	157	22	23	45	7	12	19	14	17	31	15	13	28	20	7	27	81	73	154
Total number of *persons*	77	75	152	21	22	43	..	..	..	13	17	30	..	..	..	..	..	..	79	72	151

TABLE No. 15.

DISCHARGES CLASSIFIED BY ADMISSION AND RESULT.

Number of the Admission.	Recovered.			Much Improved.			Improved.			Not Improved.			Died.			Total.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
First	13	14	27	7	9	16	10	11	21	13	11	24	15	5	20	58	50	108
Second	7	5	12	. .	1	1	2	4	6	1	1	2	2	2	4	12	13	25
Third	. .	. .	. .	. .	1	1	1	. .	1	. .	1	1	2	. .	2	3	2	5
Fourth	. .	1	1	. .	. .	. .	1	1	2	1	. .	1	1	. .	1	3	2	5
Fifth	. .	1	1	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	. .	. .	1	1
Sixth	. .	1	1	. .	1	1	. .	1	1	. .	. .	. .	. .	. .	. .	. .	3	3
Seventh	2	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	2
Eighth	. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1
Total of *cases* . . .	22	23	45	7	12	19	14	17	31	15	13	28	20	7	27	78	72	150*
Total of *persons* . .	21	22	43	. .	. .	. .	13	17	30	. .	. .	. .	. .	. .	. .	76	71	147

* Four persons, three men and one woman, not included in this table, were discharged " not insane."

TABLE No. 16.

CAUSES OF DEATH.

CAUSES.	COMMITTED.			VOLUNTARY.			TOTAL.		
	Males.	Females.	Total.	Males.	Females	Total.	Males.	Females.	Total.
NERVOUS SYSTEM:—									
General Paralysis	10	. .	10	2	. .	2	12	. .	12
GENERAL:—									
Peritonitis	1	. .	1	. .	. .	. .	1	. .	1
Pneumonia	. .	1	1	. .	. .	. .	. .	1	1
Tuberculosis	. .	2	2	. .	. .	. .	. .	2	2
Nephritis	1	. .	1	. .	. .	. .	1	. .	1
Arterio-sclerosis	1	1	2	. .	. .	. .	1	1	2
Old age	3	1	4	. .	. .	. .	3	1	4
Exhaustion	1	. .	1	1	. .	1	2	. .	2
Paralysis Agitans	. .	1	1	. .	. .	. .	. .	1	1
Cerebral Hæmorrhage	. .	1	1	. .	. .	. .	. .	1	1
Totals	17	7	24	3	. .	3	20	7	27

TABLE No. 17.

RECOVERIES, CLASSIFIED BY DURATION OF DISEASE AND TREATMENT.

PERIOD.	LAST ATTACK.									ALL ATTACKS.					
	Duration before Admission.			Hospital Residence.			Whole Duration from the Attack.			Whole Known Period of Mental Disease.			Whole Known Period of Hospital Residence.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe	Tot.	Ma.	Fe.	Tot.
A. — Committed: —															
Under 1 month . .	9	4	13	..	..	..	..	..	..	..	..	..	..	..	..
From 1 to 3 months .	..	3	3	4	1	5	2	..	2	2	..	2	3	1	4
3 to 6 " .	2	..	2	5	1	6	5	2	7	5	2	7	6	1	7
6 to 12 " .	..	..	..	3	5	8	3	4	7	2	4	6	2	4	6
1 to 2 years .	1	..	1	..	1	1	2	1	3	3	1	4	1	2	3
8 to 9 " .	..	1	1	..	..	..	..	1	1	..	1	1	..	..	..
Total	12	8	20	12	8	20	12	8	20	12	8	20	12	8	20
Average of known cases (in months) .	1.96	12.59	6.21	4.67	7.50	5.80	6.54	20.19	12.00	7.21	22.81	13.45	5.50	12.00	7.50
B. — Voluntary: —															
Under 1 month . .	4	5	9	1	..	1	..	..	..	..	..	..	..	..	..
From 1 to 3 months .	3	6	9	2	3	5	1	1	2	..	..	..	1	1	2
3 to 6 months .	1	1	2	5	10	15	5	5	10	4	2	6	6	4	10
6 to 12 " .	..	2	2	1	2	3	2	5	7	1	4	5	..	5	5
1 to 2 years .	2	1	3	1	..	1	1	4	5	2	3	5	2	4	6
2 to 5 " .	..	..	..	..	..	..	1	..	1	2	5	7	..	..	..
5 to 10 " .	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1
Over 30 " .	..	..	..	..	..	..	..	..	..	1	..	1	1	..	1
Total	10	15	25	10	15	25	10	15	25	10	15	25	10	15	25
Average of known cases (in months) .	4.65	3.47	3.94	4.95	5.10	5.40	9.175	7.93	8.43	51.3	27.7	35.18	43.5	15.3	26.58

TABLE No. 18.

DEATHS, CLASSIFIED BY DURATION OF DISEASE AND TREATMENT.

PERIOD.	LAST ATTACK.									ALL ATTACKS.					
	Duration before Admission.			Hospital Residence.			Whole Duration from the Attack.			Whole Known Period of Mental Disease.			Whole Known Period of Hospital Residence.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
A. — Committed : —															
Congenital	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under 1 month	1	1	2	1	1	2	..	1	1	..	1	1	1	1	2
From 1 to 3 months	3	..	3	4	..	4	2	..	2	2	..	2	4	..	4
3 to 6 "	2	1	3	2	1	3	..	..	..	..	..	..	1	..	1
6 to 12 "	2	..	2	2	..	2	2	..	2	2	..	2	1	..	1
1 to 2 years	5	1	6	3	..	3	5	..	5	5	..	5	5	1	6
2 to 5 "	2	1	3	3	1	4	4	1	5	4	1	5	3	1	4
5 to 10 "	2	..	2	2	1	3	4	1	5	4	1	5	2	1	3
Over 10 years	..	3	3	..	3	3	..	4	4	..	4	4	..	3	3
Total	17	7	24	17	7	24	17	7	24	17	7	24	17	7	24
Average of known cases (in months)	21.60	30.64	23.52	22.07	177.1	67.7	45.34	221.68	96.80	45.51	252.5	105.38	24.50	206.14	77.47
B. — Voluntary : —															
Under 1 month	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
From 1 to 3 months	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
3 to 6 "	1	..	1	1	..	1	1	..	1	1	..	1	1	..	1
6 to 12 "	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 to 2 years	1	..	1	1	..	1	..	..	..	..	..	..	1	..	1
2 to 5 "	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..
Over 10 years	..	..	..	1	..	1	1	..	1	1	..	1	1	..	1
*Total	3	..	3	3	..	3	3	..	3	3	..	3	3	..	3
Average of known cases (in months)	10.	..	10.	56.	..	56.	64.63	..	64.63	64.63	..	64.63	56.	..	56.

TABLE No. 19.

ANNUAL ADMISSIONS SINCE THE OPENING OF THE HOSPITAL, WITH THE DISCHARGES AND DEATHS WITHIN THE OFFICIAL YEAR, AND THE NUMBER OF EACH YEAR'S ADMISSIONS REMAINING DEC. 31, 1901.

YEARS ENDING DEC. 31.	NEW CASES.																	
	Admitted.			Discharged and Died in 1901.														
				Recovered.			Much Improved			Improved.			Not Improved.			Died.		
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
Previous years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
1887	21	33	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	38	41	79	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	47	40	87	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1890	36	47	83	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	39	50	89	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	49	60	109	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	38	53	91	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1894	50	45	95	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1895	24	49	73	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1896	46	51	97	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1897	46	50	96	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1898	46	55	101	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1899	44	52	96	..	..	..	..	..	..	..	..	..	2	1	3	2	..	2
1900	57	63	120	4	7	11	1	5	6	4	7	11	4	4	8	2	..	2
*1901	59	49	108	9	7	16	6	4	10	6	4	10	7	6	13	6	1	7
Total	..	..	..	13	14	27	7	9	16	10	11	21	13	11	24	15	5	20

* Four persons, three men and one woman, were discharged "not insane."

TABLE No. 19. — *Concluded.*

ANNUAL ADMISSIONS SINCE THE OPENING OF THE HOSPITAL, WITH THE DISCHARGES AND DEATHS WITHIN THE OFFICIAL YEAR, AND THE NUMBER OF EACH YEAR'S ADMISSIONS REMAINING DEC. 31, 1901.

YEARS ENDING DEC. 31.	READMITTED CASES.																				
	Admitted.			DISCHARGED AND DIED IN 1901.															Remaining of Each Year's Admissions, Dec. 31, 1901.		
				Recovered.			Much Improved.			Improved.			Not Improved.			Died.					
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
Previous years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	2
1887	11	10	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
1888	9	17	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1889	11	15	26	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
1890	25	15	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
1891	14	16	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1892	24	17	41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
1893	8	10	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
1894	11	10	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1895	21	14	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
1896	17	13	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
1897	13	28	41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4
1898	17	14	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
1899	17	22	39	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	1	2
1900	24	25	49	4	4	8	..	..	..	1	4	5	2	..	2	2	..	2	5	9	14
1901	21	28	49	5	5	10	..	1	1	3	2	5	..	2	2	2	1	3	11	18	29
Total	..	..	..	9	9	18	..	3	3	4	6	10	2	2	4	5	2	7	28	40	68

TABLE No. 20.

RELAPSED CASES ADMITTED IN EACH YEAR AND DISCHARGED IN 1901.

YEARS ENDING DEC. 31.	CASES PREVIOUSLY RECOVERED IN THIS HOSPITAL.																				
	Admitted.			DISCHARGED AND DIED IN 1901.															Remaining Dec. 31, 1901.		
				Recovered.			MuchImproved.			Improved.			Not Improved.			Died.					
	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.	Ma.	Fe.	Tot.
1886	10	3	13	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1887	3	4	7	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	. .	. .	. .	. .
1888	4	8	12	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1889	5	5	10	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1890	8	4	12	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1891	5	8	13	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1892	9	7	16	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2
1893	7	7	14	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1894	4	3	7	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1
1895	9	4	13	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1896	8	5	13	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1897	4	13	17	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1
1898	4	5	9	. .	. .	. .	. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1
1899	4	5	9	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1900	8	10	18	3	3	6	. .	. .	. .	. .	2	2	. .	1	1	. .	. .	. .	. .	. .	. .
1901	4	11	15	2	3	5	. .	. .	. .	1	. .	1	. .	1	1	. .	. .	. .	1	7	8
Total	96	102	198	5	6	11	. .	1	1	1	2	3	. .	2	2	. .	. .	. .	2	11	13

TABLE No. 21.

SHOWING THE COST OF PRINCIPAL STORES AT McLEAN HOSPITAL.

ARTICLES.	1899.			1900.			1901.		
	Quantity.	Cost.	Average.	Quantity.	Cost.	Average.	Quantity.	Cost.	Average.
Beef . . . . . . lbs.	109,067	$11,491.52	$ .1053	115,137	$12,064.78	$ .1047	116,638	$12,766.98	$ .1094
Mutton and Lamb, "	39,667	3,193.63	.0805	39,753	3,079.80	.0774	40,543	3,202.88	.0789
Veal . . . . . . "	15,770	1,449.86	.0919	13,430	1,188.55	.0884	13,240	1,169.24	.0883
Poultry . . . . "	29,620	4,175.13	.1409	32,198	4,194.23	.1302	38,035	4,836.83	.1271
Smoked Meats . . "	25,208	2,500.85	.0992	22,409	2,566.18	.1145	22,347	2,634.22	.1178
Eggs . . . . . . doz.	20,746	4,118.46	.198	19,816	3,871.24	.195	20,426	3,904.84	.1911
Lard . . . . . . lbs.	7,018	422.37	.06	8,136	617.52	.075	8,272	756.00	.0913
Flour . . . . . . bbls.	605	2,554.75	4.222	599	2,467.25	4.118	619	2,601.30	4.202
Butter . . . . . lbs.	22,656	4,867.67	.214	21,390	4,943.13	.231	22,279	4,741.14	.212
Coffee . . . . . . "	4,589	990.17	.215	4,151	867.36	.208	4,222	870.95	.206
Tea . . . . . . "	2,122	675.09	.318	1,853	606.93	.327	1,842	491.98	.267
Sugar . . . . . . "	42,835	2,178.41	.051	43,443	2,223.92	.051	45,500	2,476.15	.054
Potatoes . . . bush.	3,112	2,181.30	.70	2,696	1,710.48	.63	2,593	2,227.60	.859
Milk . . . . . . qts.	156,578	7,368.40	.047	154,980	7,298.04	.047	151,325	7,123.11	.047

NINETEENTH ANNUAL REPORT

OF THE

McLEAN HOSPITAL TRAINING SCHOOL FOR NURSES.

The Training School for Nurses, with the completion of the twenty years of its existence, has a roll of graduates including 413 names — 268 women and 145 men. In the following summary it is shown how many remain in the work of nursing, and into what positions in life others have gone.

	Men.	*Women.*
Number of graduates in seventeen years	145	268
Graduates remaining in the service as nurses	14	21
Graduates remaining in the service as officers	1	5
Pupils in Massachusetts General Hospital Training School		7
Previously graduated at Massachusetts General Hospital Training School		75
Superintendents of hospitals		2
Superintendents of nurses, other hospitals	5	9
Employed in other institutions	9	10
Engaged in private nursing	31	111
Medical students	12	1
Physicians	21	1
Instructor in Physical Training		1
Sanitary Inspector		1
Dental students	2	
Dentists	4	
Clergyman	1	
Students	2	
In other business	16	1
At home	12	23
Married and left the profession		66
Deceased	9	9
Pupils now in this school	31	41

This table shows that of the 413 graduates of the School in twenty years, 60 men still continue in the work, either in hospitals or in private nursing, besides 39 who are either physicians, medical students, or dentists. The women who continue in the profession of nursing number 163, of whom 26 are in this Hospital and 28 in other institutions; official positions are held by 26 in connection with training schools. Those who are married, 66, the 23 at home and likely to resume professional work in nursing, and 4 in medical and kindred work, are all in positions which give them opportunity to apply the knowledge gained in their training.

The year 1901 completed a period of twenty years since this school has been organized. Every year, since 1886, a full class of nurses was graduated. It is one of the substantial achievements of those years that so many worthy young men and women have been drawn to the work here; and that while contributing so large a share as they did to its success, they became the bearers of the knowledge gained to wider fields of usefulness. More than this, the quality of the service they gave to the sick in the Hospital and in their work afterwards as professional nurses added to its credit and strengthened the efforts that were made here to improve the care of the insane. A larger result followed in the successful establishment of other schools.

When Florence Nightingale began the movement of nursing-reform for the world at large, early in the last half century, she commanded success at once by recognizing the principle that nursing could be made a profession to render skilled service for proper compensation. Thus the nurse was given a place in a respectable calling, which met the need common to all who must work for a living. The success of the McLean Hospital Training School was due to the recognition of the same principle; previous attempts to establish such systems of training had not generally gone beyond a limited amount of teaching by lectures in matters pertaining to the special work of attendance upon the insane. There was no adequate demand in the public service for such a specialist nurse. It was because the teaching here, from the beginning, covered the whole ground of general nursing as far, at least, as a regular course of didactic instruction in a general hospital goes, that our graduates were able to maintain themselves as nurses in the general work of the profession. It was their success that determined the whole question of the practicability of a system of training in this Hospital. It is essential to the maintenance of schools in such Hospitals that their product shall be qualified to *practise* as general nurses; otherwise they have no professional standing sufficient to attract worthy recruits to their ranks and thus maintain the schools. There is a fallacy somewhere in the position taken by the organized bodies of trained nurses in not recognizing as worthy of membership with them the graduates of schools in hospitals for the insane. It is assumed even that no medical nursing is done in such hospitals; it is assumed also that only in a large general hospital can the nurses receive general training, whereas, the best training in the general qualifications that make a nurse personally acceptable is to be had where the capacity for adaptation to the varied traits and personalities among her patients is most brought into exercise. In the general hospital, on the other hand, the pupil-nurse is put at once into the practise of the art among patients who are expected to be obedient to her. This training throughout appears to be so wholly objective that unless she has inherent certain desirable qualifications she actually acquires a dislike and a certain unfitness not only for "nervous and mental cases," but for the work in private families for which a real "general" training should have qualified her.

It is quite obvious that there is some error in a course of action which should tend to repress so great a cause as the modern reform in the care of the insane which the system of training is effecting. The remedy for the present state of things is for the nursing guilds to foster more generously this large and important branch of nursing work. On the other hand, the schools in hospitals for the insane should make use of the present advancement in the organization of strictly hospital wards and surgical departments for the improvement of the course of training for the nurses. As a matter of fact, in our modern hospitals for the insane the conditions are ample for very complete and satisfactory courses of instruction to qualify nurses for full standing in their profession. The question of extending the training to a three years' course should be considered, in correspondence with the like movement in the general hospitals.

EDWARD COWLES,

Medical Superintendent.

McLEAN HOSPITAL TRAINING SCHOOL FOR NURSES, WAVERLEY, MASS.

The Trustees of the Massachusetts General Hospital Corporation, having established at the McLean Hospital a School for Nurses, offer to give to men and women desirous of becoming professional nurses a two years' course of training in general nursing, with special reference to the care of cases of nervous and mental disease. The Training School is conducted by the Superintendent of the Hospital, under the authority of the Board of Trustees.

Those wishing to receive such a course of instruction must write to the Superintendent of the McLean Hospital, Waverley, Mass., giving a brief personal history and also the names and addresses of three responsible persons who know of their good character and capabilities. If it is then thought advisable for such prospective candidates to make a formal application, blank forms especially provided for this purpose will be sent to them.

Candidates must be in sound health, and must send with their application a certificate from a physician certifying to the fact. The most desirable age is from twenty-one to thirty-five years.

Upon the recommendation of the Superintendent of the Hospital and the approval of the Trustees, they will be received for two months on probation, at the expiration of which time they will, if accepted, sign an agreement to complete the prescribed course of two years.

The nurses are subject to the rules of the Hospital. Their fitness for the work and the propriety of retaining or dismissing them at the end of the two months of trial are determined by the authorities in charge of the School, under the direction of the Trustees.

At the end of the first six months the record of each pupil is again carefully examined and the right is reserved to terminate then, or at any other time, the connection of any pupil or nurse with the School and Hospital for inefficiency, misconduct, generally unsatisfactory record, or for any other reason which may be deemed sufficient.

All nurses are required to be sober, honest, truthful, trustworthy, punctual, quiet, orderly, cleanly, neat, patient, kind, and cheerful.

Instruction is given by the officers of the Hospital. The course includes the general care of the sick; the managing of helpless patients in bed, in moving, changing bed and body linen, making of beds, etc.; giving baths, keeping patients warm or cool, preventing and dressing bed sores; bandaging, applying of fomentations, poultices, and minor dressings; the preparing and serving of food, the feeding of helpless patients and those who refuse food; the administering of enemas and use of the catheter; attendance upon patients requiring diversion and companionship; the observation of mental symptoms, delusions, hallucinations, delirium, stupor, etc.; and the care of excited, violent, and suicidal patients.

They are also given instruction in the best practical methods of supplying fresh air, and of warming and ventilating sick-rooms in a proper manner, and are taught to take proper care of rooms and wards, to keep all utensils perfectly clean and disinfected, etc.; to observe the sick accurately in regard to the state of secretions, pulse, breathing, skin, temperature, sleep, appetite, effect of diet, of stimulants, and medicine; the giving of massage, and the managing of convalescents.

Instruction is also given in the modern methods of physical training, by the use of free movements and the usual apparatus, in a gymnasium provided for the patients. The nurses assist in the medical application of physical exercise. Each nurse is required to have a gymnasium costume, the material for which will be furnished, at moderate cost, by the Hospital.

The nurses receive practical instruction in Hydrotherapy, in the application of baths, by the use of the hot-air cabinet, douche, shower baths, etc.; also the use of the drip sheet, wet pack, the sitz and half bath, the application of compresses, and other procedures which may be used in private nursing when the special apparatus of a hospital bath-house is not available.

Written examinations take place at the middle and end of each school year, and pupils must attain on critical marking at least sixty per cent.

Instruction by text-books and lectures is given for eight months of the year, from October 1 to May 31, but accepted candidates enter the School whenever vacancies occur. They are usually taken in the order of acceptance, though some can anticipate this time and enter with less delay, if they are so situated as to be able to have their names placed on the emergency list. It is no disadvantage to enter the School between May and October, as the pupil gets some practical knowledge of the care of patients before taking up the study required by recitations and lectures.

There is no fixed date for graduation. On completion of the full term of two years, nurses who have passed all the required examinations receive diplomas certifying to their period of training, their proficiency, and good character.

The pupils reside in the Hospital and are employed as assistant nurses in its wards. The men are paid twenty dollars ($20) per month during the first year and twenty-three dollars ($23) per month during the second year. The women are paid twelve dollars ($12) per month during the first year and fifteen dollars ($15) per month during the second year. Their education during this time is a valuable addition to the compensation for their services.

Most graduates engage in private nursing or accept positions of trust in other institutions. Some are invited and prefer to remain in the service of this Hospital. Men graduates of this School are paid twenty-seven dollars ($27) per month during the first year and thirty dollars ($30) per month thereafter. Women graduates of this School are paid twenty-five dollars ($25) per month during the first year and thirty dollars ($30) per month thereafter. Graduates of this School, who are also graduates of the Training School for Nurses at the Massachusetts General Hospital in Boston, are paid thirty-five dollars ($35) per month.

The women probationers while on duty are expected to dress plainly and neatly in a cotton gown, and are permitted to wear, of the regular uniform, only the cap and apron. The men wear ordinary plain clothing. After formally joining the School, at the end of the period of probation, both men and women are required to wear the Hospital uniform at all times while on duty in the wards.

Women graduates of this School who wish to have additional practical experience and instruction in general nursing have the privilege, under certain restrictions, of entering the Training School for Nurses at the Massachusetts General Hospital in Boston. Such graduates will, after one year's satisfactory study, receive the diploma from that School, in addition to the diploma received from the McLean Hospital Training School.

COURSE OF INSTRUCTION.

Junior Year:

Physiology and Hygiene (to the Nervous System) . *Martin.*

Fever-Nursing . . . . *Wilson.*

A Text-Book of Nursing. . . . . *Weeks-Shaw.*

What to do First in Emergencies . . . . *Dulles.*

Practical Instruction in Massage (twelve lessons).

Physical Training (twenty lessons).

Practical Instruction in Cookery; for women, each morning for one month; for men, eight lessons.

Instruction in the wards by the Superintendent of Nurses, Supervisor, and Head Nurses.

A lecture each week. — Assistant Physicians.

Senior Year:

Physiology and Hygiene (completed) . . . . . . *Martin.*

A Text-Book of Nursing (completed) . . . . . . *Humphry.*

A Hand-Book of Obstetrical Nursing . . . . . . *Fullerton.*

How to Care for the Insane . . . . *Granger.*

Physical Training (twenty lessons).

Practical Instruction in Massage (ten lessons, men).

Instruction in the Wards by the Superintendent of Nurses, Supervisor, and Head Nurses.

A lecture each week. — Superintendent.

Books for Reference:

A Text-Book for Training School for Nurses . . . *Wise.*

The Care of the Sick . . . . *Billroth.*

Hand-Book for Hospitals . *State Charities Aid Association, N. Y*

Hand-Book for the Instruction of Attendants on the Insane.
Sub.-Com. British Med.-Psych. Association.

A Primer of Psychology and Mental Disease . . . *Burr*

ORDER OF EXERCISES.

MEN.

Monday.

4.00 P. M. Junior Class, Recitation.
6.30 P. M. Junior Class (Div. of eight), Massage.

Tuesday.

4.00 P. M. Senior Class, Lecture.

Wednesday

4.00 P. M. Junior Class, Lecture.
6.30 P. M. Junior Class (Div. of eight), Massage.

Thursday.

4.00 P. M. Senior Class, Recitation.
6.00 P. M. Junior Class (Div. of six, eight lessons), Bandaging.

Friday.

11.00 A. M. Junior Class (in Divisions of six, from February 1), Care of Sick Patients in Bed, Poulticing, etc.
3.00 P. M. Junior Class (Div. of eight), Instruction in Cookery.
4.00 P. M. Mixed Class, Lecture.

Saturday.

4.00 P. M. Junior Class (Div. of six, eight lessons), Bandaging.

WOMEN.

Monday.

9.00 A. M. Junior Class (in Divisions of two for one month each, every morning in the week), Instruction in Cookery.
4.00 P. M. Senior Class, Recitation.
7.00 P. M. Junior Class (1st Div.), Recitation.
8.00 P. M. Mixed Class, Instruction in Physical Training.

Tuesday.

11.00 A. M. Senior Class, Recitation.
4.00 P. M. Senior Class, Lecture.

Wednesday.

11.00 A. M. Junior Class (2d Div.), Recitation.
4.00 P. M. Junior Class (Div. of six), Massage.

Thursday.

11.00 A. M. Head Nurses, Review, etc.
4.00 P. M. Mixed Class, Instruction in Physical Training.

Friday.

4.00 P. M. Junior Class, Lecture.

Saturday.

4.00 P. M. Junior Class (Div. of six), Massage.
4.00 P. M. Junior Class (Div. of six), Poulticing, Bandaging, Drugs, etc.

SUBJECTS OF LECTURES.

JUNIOR YEAR.

TWO. — The skeleton: skull, thorax, pelvis, and spinal column, general anatomy and physiology; a consideration of the more common injuries to which they are liable.

THREE. — Surgical landmarks: prominent points of the skeleton [demonstration on a subject]. Fracture and repair of bones. The joints; sprains, dislocations, etc.

ONE. — The muscles: general anatomy and physiology. Paralysis, rigor mortis, etc.

THREE. — The blood: its function, coagulation, etc. The heart and blood-vessels. The pulse: information to be gained from it; causes of variation in rate, strength, etc. Diseases of the circulatory system.

TWO. — Hæmorrhage: varieties — epistaxis, hæmoptysis, from various parts of the alimentary canal, post partum, apoplexy, etc. Symptoms of serious hæmorrhage; various means of stopping it. Demonstration on a subject of location of blood-vessels and methods of applying pressure.

TWO. — Respiration: organs and mechanism of; effect of various diseases; asphyxia; artificial respiration [demonstration on a subject].

ONE. — Suicide: causes, means, etc. Care of suicidal patients.

ONE. — Animal heat: its source, regulation, change in disease, and methods of ascertaining and recording.

ONE. — The use of heat in the treatment of disease; sources and the effects obtained; baths, general and local, poultices, fomentations, etc.

TWO. — The use of cold in the treatment of disease; sources and effects. Fever: methods of reducing high bodily temperature.

TWO. — Pathogenic germs: contagious diseases; disinfectants and disinfection.

THREE. — Consideration of some common acute diseases.

ONE. — Various diseases of which dropsy is a symptom.

FIVE. — Effect of states of mind on the body ; mind cure, etc. Drugs and medicines : methods of administration ; circumstances that modify their ordinary effects.

TWO. — Surgical nursing.

TWO. — Charts and records. Practical hints.

SENIOR YEAR.

One. — The history of hospitals.
One. — The history of nursing.
One. — Duties of the nurse.
One. — General care of patients. Personal hygiene.
One. — Hospital housekeeping.
One. — Heating and ventilation.
Two. — The nervous system.
One. — The special senses.
One. — Reflex action of the nervous system.
Four. — Mental faculties and their disorders.
One. — Common sensations and their disorders.
One. — Nervous exhaustion and its nursing care.
One. — Nature and causes of insanity.
One. — Hypochondriasis. Eccentricity.
Two. — Fixed ideas. Hysteria.
Three. — Melancholia and mania. The duties of the nurse in the care of these conditions.
One. — Dementia, and the care of patients in its various forms.
One. — Delusional insanity; its various forms.
One. — Epilepsy and convulsions.
One. — General paralysis.
One. — Writing notes of mental symptoms.

OFFICERS OF THE McLEAN HOSPITAL.

Medical Superintendent.
Edward Cowles, M. D.

1st Assistant Physician.
George T. Tuttle, M. D.

2d Assistant Physician.
Charles S. Little, M. D.

Pathologist and Assistant Physician.
August Hoch, M. D.

Assistant in Pathological Chemistry.
Otto Folin, Ph. D.

Junior Assistant Physicians.
Guy G. Fernald, M. D.
Emma W. Mooers, M. D.
Martin J. Cooley, M. D.
Phil A. Shaffer, A. B.

Chaplain.
Rev. George J. Prescott.

Superintendent of Nurses and Matron.
Lucia E. Woodward.

Assistant Superintendent of Nurses.
R. Helen Cleland.

Clerk.
Margaret E. Clark.

Librarian.
Nan J. Evans.

Instructors in Physical Training.
David H. Holmes.
S. May Taylor.

Instructor in Cookery.
Cecilia K. Bradt.

Supervisor of Women's Department.
Luna J. Young.

Supervisor of Men's Department.
Aubrey W. Tower.

Purveyor.
John P. Bradbury.

Apothecary.
Ernest L. Noyes, Ph. G.

Storekeeper.
William S. Ripley.